THE 3RD ANNUAL INTERNATIONAL CONFERENCE ON
INDUSTRY AND HIGHER EDUCATION

Knowledge Management for
Industrial Innovation and
Development

A Journal of the Management University of Africa
## Contents

1: From E-Supply Chain Capability Generation to Information Technology Value Co-creation: A Perspective of E-Business Process ................................................................. 2

   Jing Zhao; Yi Jiang; and Zhen Zhu – (China University of Geosciences)

2: Supply Chain Management in the Manufacturing Sector: Components, Benefits and Challenges ............................................................................................................. 10

   1Kitainge, Kisilu(PhD) and 2Koech, William K. – (1Chepkoilel University College, Kenya, and 2Rift Valley Institute of Science and Technology, Kenya)

3: Influence of Internal and External Environment Factors on the Strategic Planning Process in Ugandan Organisations ................................................................. 22

   Amooti, Bagire Vincent and Namada, Juliana Mulaa – (Makerere University Business School, Uganda)

4: Management of Records for Competitive Advantage in Kenya’s Banking Sector ............. 32

   Maseh, Elsebah and Mzera, Nelly – (Moi University, Eldoret, Kenya)


   Wambua, Philip Peter – (Kenyatta University, Kenya)

6: The Role of Pension Schemes on Motivation of Employees: A Case Study of Tuskys Supermarkets ........................................................................................................ 47

   Wanjoji, Caroline Wagithi; Wanjau, Kenneth (PhD) and Anyango, Dickson Mark Odhiambo – (Jomo Kenyatta University of Agriculture and Technology, Kenya)

7: Social Economic Factors Affecting Women Loan Repayment Behaviour in KWFT........ 59

   Lyani, Mary Nelima; Nganga, Stephen Irura and Cheruiyot, Thomas – (Jomo Kenyatta University of Science and Technology, Karatina University College and Moi University, Eldoret, Kenya)

8: Servant Leadership and Sales Force Performance in Uganda’s Banking Sector............. 71

   Kiggwe, Musa; Ngoma, Muhammed and Omagor, Charles – (Makerere University Business School, Uganda)

9: Movers in Achieving Industrial Innovation Sustainability: A Critical Review .............. 84

   1Kamau, Alice Wangui and 2Katuku, Alex – (1Karatina University College, Kenya and 2The Kenya Institute of Management, Kenya)
10: Management and Leadership Competencies of Agricultural Extension Agents in Kenya: Implications for Curriculum Development

Lopokoiyit, Mary C.; Onyango, Christopher(PhD); and Kibett Joash K.(PhD) − (Egerton University, Kenya)

11: Benefits of Membership to a Microfinance Institution as Assessed by Both Subjective and Objective Measures: A Case Study of the Uganda Gatsby Trust

Joy Turyahabwa and Isaac Nkote Nabeeta − (Makerere University Business School)

12: The Impact of Knowledge Management and Intellectual Capital on Institutional Innovations

Kavita C. Kyuli and Gilbert Indanya − (The Kenya Institute of Management, Narok Branch, Kenya)


Wambui, Tabitha Wangare, Boit, John(PhD) and Gathuthi, Elizabeth Wangari(PhD) − (Moi University Eldoret, Kenya, and The Management University of Africa, Kenya)

14: Analysing the Role of Local Government in Promoting Knowledge Management in Higher Education: A Case of the City Council of Nairobi

Ntoiti, John and Maureen Kangu − (City Council of Nairobi, Kenya, and The Management University of Africa, Kenya)

15: The Effect of Contextual Factors on Risk Underwriting Decisions in Insurance Industry

Mudaki, Abisay Lumosi and Maluti, Lucania Vincent (Masinde Muliro University of Science and Technology, Kenya)

16: Knowledge Management and High Performance Organisations in the Financial Institutions in Uganda

1Bagorogoza, Janet Kyogabirwe; 2André de Waal(PhD); 3H.J. Van den Herik(PhD); and 4B.A. Van de Walle − (1Makerere University Business School, Uganda; 2Maastricht School of Management, Netherlands; and 3&4Tilburg University, the Netherlands)

17: Role of Governance in Strategy Implementation in Higher Education Institutions in Kenya

1Amurle, Grace Soprin; and 2Chiuri, Beatrice − (1African Economic Research Consortium (AERC) and 2Kenya Polytechnic University College, Kenya)

18: The Level of Professionalism and Effectiveness of the Teacher Counsellor in Student Guidance and Counselling in Secondary Schools in Nandi North District
Tanui, E. (PhD); Ndegwa, Lucy and Jepkemboi, R. − (School of Education, Arts and Social Sciences, Narok University College, Kenya)

19: A Framework for Implementing Sustainable E-learning Information Systems in Developing Countries: A Case of Africa................................................................. 205

Kituyi, Geoffrey Mayoka; Moya, Musa and Kyeyune, Robert − (Makerere University Business School, Kampala)

20: Communication Industry and Higher Education: The Learning in E-learning ........ 211

Nyaole, Rosemary–Kowuor (Daystar University, Kenya)

21: Mobile Telephony and Rural Household Income Growth in Uganda...................... 217

Ggoobi, Ramathan and Nabeta, Isaac Nkote − (Makerere University Business School, Uganda)

22: Getting the Right Time to Do What Is Right ............................................................. 234

Amuhaya, Geoffrey − (Ministry of Public Works, Kenya)


Okongo, Kennedy Odwour and Sakwa M. M. − (Jomo Kenyatta University of Agriculture and Technology, Kenya)

24: The Role of Human Resource Management Practices in Adoption of Competitive Strategies by Mobile Phone Service Providers in Kenya ......................................................... 257

1Kiriri, Peter N. (PhD); 2Guyo, Wario W. (PhD) and 3Matta, Ngao Sammy − (1United States International University, Nairobi Kenya, and 2&3Jomo Kenyatta University of Agriculture and Technology, Kenya)

25: Definition of CSR from a Ugandan Perspective: Results from the Responses of Sheraton Uganda Trainees, Employees and Locals Accessing the Sheraton Supported Public Gardens...

268

Turyahabwa, Joy − (Makerere University Business School, Kenya)

26: Enforcing Quality Practices in Higher Education and Industry: The Legal Framework...
......................................................................................................................... 280

Christopher Yegon and Moses Wandera − (Jomo Kenyatta University of Agriculture and Technology and Ministry of Education, all in Kenya)

27: ICT Adoption and Growth of Small Enterprises: A Study of Kisumu City (CBD)...... 288

Ogalo, James Ochieng (PhD) and Asaka, Charles Nyangara − (The Kenya Institute of Management, Kenya)
28: An Assessment of Communication Dynamics E-Government: A Case of the Online Recruitment System ................................................................. 302

Ntwigah, Fridah Wanjiru – (Moi University, School of Human Resource Development, Kenya)

29: Designing and Developing an ICT Management System for Teaching and Learning in Kenya: The ODL Model ................................................................. 317

Kessio, David K.; Boi, James K. and Boit, John M. (PhD) – (Moi University, Kenya)


Ogutu, Joseph Onyango and Irungu, Joseph Kamau – (University of Nairobi, Kenya)

31: Telephone Interviews: An Option for Reducing Costs by Firms ................................................................. 333

Lelan, Joseph K. and Chumba, Sammy K. – (Moi University Eldoret, Kenya)

32: The Role of ICT in the Growth and Development of the Tourism Industry in Kenya . 342

Othoche, Bertha – (Pwani University College, Kenya)

33: Utilisation of Information Communication Technology in Economic Growth and Poverty Reduction in Africa ................................................................. 353

Oganga, Clement Otieno – (The Kenya Institute of Management Kisumu Branch, Kenya)

34: Entrepreneurship and E-commerce as Core Disciplines in Institutions of Higher Learning ................................................................................................. 369

Lucas Mwirigi and Nderi Wari – (The Kenya Institute of Management Meru Branch, Kenya)

35: Pre-service Teachers’ Preparedness in Use of ICTs in School ................................................................. 377

Mary, W. Ng’ang’a; Z.K. Kosgei; Dr J. Kanyiri – (1Moi University, School of Education; 2Moi University, School of Education; 3Moi University, School of Education)
FOREWORD

The Annual International Conference began two years ago as the brainchild of the Kenya Institute of Management. The main objective of the annual activity is to bring educationists together with industry, in pursuit of narrowing the gap between education and industry. The organisers recognise that without regular interaction between the educationists and industry players, it is possible for the educationists and trainers to produce square pegs for industrial round holes.

It was in the foregoing regard that the first forum of this kind was launched in June 2009. The conference is growing phenomenally and it is with a great measure of satisfaction that the institute passed it on to the Management University of Africa (MUA), to carry it into the future. The conference represents MUA inaugural scholarly engagement with both industry and society. The 3rd Annual International Conference on Industry and Higher Education focused on “Knowledge Management for Industrial Innovation and Development”. It is important to note that the nature of the work environment is continuously changing in relation to technology, global economy and organisational structures. The changes call for acquisition and development of new skills within the educational institutions.

Institutions of higher learning must invest and engage in serious research to create knowledge products and processes necessary for industrial development and the continuous innovation of these industries. These institutions must also play an important role in the protection, commercialisation and dissemination of this knowledge. Research must be undertaken to inform policy in respective institutions and nations in order to pass the requisite Intellectual Property Rights (IPR) laws to protect specific and relevant knowledge systems.

For example, African institutions of higher learning should endeavour to collaborate with each other in knowledge sharing and the cross-fertilisation of ideas for industrial innovation. They must also collaborate with industry to be able to commercialise their research findings as well as contribute to enhance the process of industry to bring about innovative ways of production.

It is with the above thinking in mind, that the MUA organised its inaugural scholarly engagement with both the industry and society with a specific focus on theme “Knowledge Management for Industrial Innovation and Development”. At the end of the three day engagement the participants came up with some resolutions as contained in this document. MUA looks forward to fruitful implementation of the proposed solutions by the relevant parties involved.

Prof. Jude Math hooko
Vice Chancellor
Management University of Africa
CONFERENCE BRIEF

At MUA, we recognise that learning is a continuous process. Our role in shaping the pedagogy agenda becomes even more poignant when we cast our attention to the fickle nature of industry and the job market. The job market and the technology-driven industry are in an interminable metamorphosis of a series of vicissitudes that demand that we all shape up by perpetually honing our skills. Among other objectives, this annual conference sought:

1. To provide a forum for stakeholders in the manufacturing and service industry and higher education in Africa to reflect on challenges and opportunities in merging theory and practices.
2. To advance scholarly and practical research in the development of industry and higher education in various disciplines in the business world.
3. To provide a platform for sharing experience and ideas on emerging trends in the business world and lecture theatres in relation to knowledge management and industrial innovation for sustainable development.

The 2011 Annual International conference attracted participants from Kenya and other countries such as China, Hong Kong, India, South Africa, Uganda, Tanzania, Rwanda, Ghana and Nigeria. Following a wide range of quality presentation and in-depth discussions by leading academicians and industrialists based on the 2011 conference theme “Knowledge Management for Industrial Innovation and Development” the following emerged:

1. Institutions of higher learning are the only ones that can develop the requisite leadership and undertake the necessary research to develop the new knowledge that will move our economies from the P-Economy to the K-Economy to unleash innovative prowess for industrial growth.

2. Development of the right entrepreneurship policies, careful implementation and monitoring of the same can facilitate a nation inculcation of entrepreneurial culture in the populace successfully through identifying, training, nurturing and providing an appropriate economic and political environment to entrepreneurs.

3. MSMEs benefit from large investors. For example FDI bring capital, markets, technology and management skills. While MSMEs within investor-friendly government and academia that understand their needs contribute to MSMEs' prosperity.

4. Business incubators are an effective tool to promote entrepreneurship among university graduates and in incubation centres, there is a vibrant community of established players and young tech entrepreneurs.

5. The core competencies of the e-supply chain, as associated with e-supply chain processes, are achieved by e-supply chain capabilities, which are as integrated process enablers between upstream and downstream processes to realise benefits for focal firms and all partners (for instance supplier and customer).

6. Institutions of higher learning need to tailor research to the needs of society and socialisation; fuse economic planning with technology planning; develop innovativeness by translating scientific discoveries into products through incubation units and by creating a strong link between universities and the industrial sector. Then the Government should fund research and development with at least 1 percent of GDP.

7. Effective and long-lasting university industry links can best be sustained if the universities strengthen themselves on the three “Cs” - competencies, creativity and credibility. However the whole system of links for technological change and innovation is sustainable if all the three actors in the triple helix maintain the critical four “Rs”, which are: Recognition, Respect, Reciprocity and Renewal.
8. Cities are increasingly becoming a focus of interdisciplinary research on innovation especially in regard to “Knowledge City” which is a city purposefully designed to nurture knowledge. Therefore need for a new arena for dialogue with leaders in cities as a tool for strategic development and knowledge sharing, resulting in added value for people in cities, organisations or companies.

9. The industry exists for growth and revenue generation, while higher education institutions require revenue and sustainability to produce needed manpower for the industry. The
impact of ICT on higher education and its implication for the industrialising economy provide a sound argument for investment on the development of intellectual capital to build capacity for knowledge-based economy.

10. Higher education and training institutions should focus on training, innovations and skills enhancement for job-creation rather than job-seeking. This will involve creating entrepreneurial institutions supported by an equally entrepreneurial state. Every nation MUST invest in her people so as to be globally competitive through quality education, training and research for national cohesion and sustainable development.

CONFERECE DETAILS

The Annual International Conference on Industry and Higher Education was launched in June 2009 under The KIM School of Management. It was in its 3rd hosting that it was passed on to the Management University of Africa (MUA), a product of the Kenya Institute of Management, to carry it into the future. The main objective of the conference has been to bring educationists together with industry, in pursuit of narrowing the gap between education and industry.

The 3rd Annual Conference theme addressed “Knowledge management for industrial innovation and development.” It was held between 28th and 30th September 2011 at the MUA, University Grounds.

The Sub-Themes included:

2. Entrepreneurship, Small Businesses and Human Resource Development.
3. ICT for Economic Growth in Africa.
6. Communication Industry and Higher Education.

Distinguished Guest Invited and Topic of Discussion

1. Prof. David N. Abdulai was the Chief Guest over the three day event. Higher education is the CEO and Executive Director of UNISA’s Graduate School of Business Leadership (SBL) in Midrand, South Africa. Prof. Abdulai in his topic “The Role of Higher Education Institutions Leadership in Knowledge Management for Industrial Innovation and Development” clearly stated, among other things, that higher institutions of learning in Africa can and must play an important role in knowledge generation, knowledge management, its commercialisation and dissemination to aid Africa in her growth and development efforts. It is only through knowledge generation and its effective management that will help Africa unleash her innovative prowess.

2. Prof. Paschal B. Mihyo, Executive Director of Organisation for Social Science Research in Eastern and Southern Africa led discussion on “The Role of Research in Knowledge Management for Industrial Innovation and Development”. Among other things, Prof Mihyo brought out the need for the Industry to; develop its own research capacity, develop long term strategic research and development programmes; help universities generally to train a new generation of technical and technological experts and build strong links with universities to enhance innovation for competitiveness. Prof. Mihyo also addressed the universities need to; reinvent their curricula to reflect problems in the real economy, to upgrade the capacity of their researchers to give them a competitive edge over researchers in other sectors, to take all measures to build credibility and trust, and to get the right managers for centres of technology and innovation.
3. Prof. Maggie Kigozi, Investment Promotion Expert and immediate former Executive Director of Uganda Investment Authority, lead a discussion on “The Role of the MSME Sector in National Industrialisation”. Prof. Kigozi clearly stated that MSMEs directly benefit from large investors in various ways, for example, FDI bring capital, create markets, upscale technology and redefine management. This implies that MSMEs, under investor-friendly governments and academia who understand MSME’s needs, contribute to MSME’s prosperity.

4. Prof. Jing Zhao, Director, Centre for International Cooperation in E-Business, School of Economics and Management, China University of Geosciences discussed “From e-Supply Chain Capability Generation to Information Technology Value Co-Creation: A Perspective of E-Business Process”. Prof. Jing gave an insight on the theoretical support required for a dynamic process that is distinctive in e-supply chain capabilities and embedded in e-business process which leads to process performance first and then financial performance and network performance. The discussion emphasised that new e-supply chain capabilities act as integrated process enablers between upstream and downstream e-business process to realise e-supply chain value for all partners.

5. Prof. Peter Berachesebe Kibas, Deputy Vice Chancellor (DVC) of Kabarak University and full Professor of Entrepreneurship and Management gave insights on “Entrepreneurship: Key to Kenya’s Development”. Prof Kibas, among other ideas, suggested that one vital process in the development of entrepreneurship is the inculcation of the entrepreneurial culture in the populace through developing the right entrepreneurship policies and careful implementation and monitoring process to ensure success.

6. Prof. Shaukat A. Abdulrazak, Secretary/CEO National Council for Science and Technology (NCST) handled the topic: “Importance of Ensuring Dissemination, application of scientific research result and transfer of Technology for Economic Development”. Prof Shaukat emphasised that research important for a country’s economic development. Higher education stated that economic development through research is achieved when research, for example, is able to create wealth, shape policy, contribute to knowledge development and address societal issues.

7. Charles Omagor, the Dean Faculty of Commerce, Makerere University Business School and marketing specialist addressed “Servant Leadership and Sales Force Performance in the Banking Sector - A Case of Uganda”. Omagor established that there is a significant positive relationship between servant leadership, sales force commitment and sales force performance. There is therefore a case for the adoption of the servant leadership style in the management of the sales force for any organisational growth.

8. Ms. Mbonu Roseline Israel, Officer - the Deputy Provost, Adeniran Ogunsaya College of Education and Chief Executive of Space Impact Entertainment, led discussions on “Integration of Management Information System (MIS) into SMSE”. Ms Mbonu clearly brought out the impact of ICT on higher education as well as its implication for the industrialising economy. She emphasised the need for investment on the development of intellectual capital to build capacity for knowledge-based economy.

9. Mr. Rajeev Aggarwal: A PhD scholar at Singhania University, India and Director, Centre for Innovations and Technology Transfer, Kigali Institute of Science and Technology - led the discussion on “Effectiveness of Technology Business Incubation as a Tool for Entrepreneurship Development with Special Emphasis on Technology and Business Incubation Facility in Rwanda”. Mr. Aggarwal
established that Business Incubators are an effective tool in promoting entrepreneurship among institutions of learning and it creates opportunities to access the global market by partnering with the industry player.

10. **Dr. Gituro Wainaina**, Director of Social and Political Pillars in the Kenya Vision 2030 Delivery Secretariat and a Board Member of Capital Market Authority discussed on “Industry and Higher Education Role in Developing Manpower in Growing Economies”. Dr. Gituro clearly stated how education and training can serve as an engine for economic growth through training of quantity and quality human resources to support sector growth and provide for equal opportunity for participation in economic development.

11. **Prof. Waltraut Ritter**: Director, Knowledge Networks and Innovation with the Asia Pacific Intellectual Capital Centre, a Knowledge Economy Research Centre, established the opportunity of “Knowledge Management and Innovation – China-Africa Knowledge Exchange”. Prof. Waltraut pointed out that cities are increasingly becoming a focus of interdisciplinary research on innovation. She argued that a city should be looked at as a region that bases its ability to create wealth on its capacity to generate and leverage its knowledge capabilities through knowledge-based extended networks formed by enterprises and people.

**Summary of the Conference Presentation and Resolutions**

In line with the papers presented at the conference and discussions along the presentations, the following key issues were tackled and resolutions arrived at for further communication to the relevant stakeholders:

**Relevance of Educational Assessment in Africa and Industry Placement**

**Issue:**
Without a clear understanding of what higher education should offer and the best way of offering it, assessments become a challenge. The industry should be in closer liaison with higher education so that the goals to be achieved are clear. It is not enough to lament that graduates are half-baked. The links and collaborations must be clear and mutual.

**Resolution:**
There should be a deliberate move by industry and higher education towards closer collaboration in training, research and development.

**Entrepreneurship, Small Business and Human Resource Development**

**Issues:**
SMEs are the backbone of African industrial development especially in resolving the unemployment problem facing the youth. However, development of this sector has not been fully exploited. This could be partly due to inadequate resources or lack of relevant skills and knowledge. In addition, the university curriculum trains graduates to become job seekers as opposed to being job creators.

**Resolution:**
There is need for inclusion of entrepreneurship and business planning unit in all the programmes offered in the universities. This will prepare graduates to become job creators and make Africa an industrial powerhouse.
ICT and Economic Development in Africa

Issue:
The three major issues facing organisations today are globalisation, downsizing and outsourcing. These issues afford business opportunities as well as competition. Liberalisation has opened African markets to global competitors. Cheap and affordable products from developing countries are flooding the local scene to the detriment of the local entrepreneurs. The African entrepreneur faces huge challenges in terms of access to resources, appropriate skills, inadequate disposable income, poor marketing channels as well as weak distribution networks. This is further complicated by unfavourable legal regimes and inadequate wealth creation policies which discourage local and foreign investments. Unless African businesses embrace ICTs to access the global market, they risk closing shop. ICTs are the panacea to the African entrepreneur’s woes of accessing global markets to compete with other world-class entrepreneurs. Healthy competition leads to improved quality of life and prosperity. There is need therefore for African entrepreneurs to embrace ICTs in their businesses to compete globally.

Resolution:
African Governments should spearhead development of favourable business ICT policies as well as legal regimes that make it easier for investors to prosper and engage in e-business. Africa is an economic powerhouse rich in natural and human resources. African leadership must also embrace ICTs, democracy, e-governance and continuously innovate to allow for wider participation by the citizenry.

Quality Practices in Higher Education

Issues:
The rest of the world except Africa is operating on one type of the global excellence models (GEMs). Even though Africa consumes almost all the training systems of the world, she does not have a measuring criterion for excellence. Moreover, the greater challenge to Africa is that higher education sector is not involved not only in the application but also in the thinking of quality measures.

Resolution:
There is a need to appreciate the need for the development and application of an acceptable excellence model in Africa’s higher education.

Communication Industry and Higher Education

Issue:
The world is now a global village. The main players are connected via the worldwide web, the Internet and social networks. Africa is the only lone player in the communication industry trying to copy, adapt and cope with changes in the communication industry. Higher education is involved in imparting skills and knowledge on how the industry works. It is time for higher education to get involved and venture into the communication industry.

Resolution:
There is need for the higher education to be in the forefront of the development and utilisation of communication technology. There is also a need for opening up the communication within and without so that higher education is not left out in the communication industry.
Management Leadership and Governance

Issues:
Most of the problems in Africa have little to do with availability but has everything to do with leadership and governance. We have a deficiency in visionary leadership in our institutions of higher learning. We are unguided in our governance styles and values. We are selfish and greedy.

Resolution:
There is a need to streamline our leadership training and sourcing in order to improve the governance practices. Institutional management is key to the sustainability of education, training and industry.

Vision 2030

Issue:
The Vision 2030 is not a blueprint without a soul. It must be input with a soul in the name of values and norms. It is a goal without a path to its achievement. It says what should be without outlining the means and ways of participation by the stakeholders.

Resolution:
There is a need for an implementation plan that outlines what is expected of each sector and individuals. This shall breakdown Vision 2030’s big blocks into achievable objectives. The objectives should be achieved within some time lines.

Research in Higher Education and Industry

Issue:
Research in academia does not seem to have direct application to real life so as to solve societal problems. It is not practical and mostly seeks to advance or refute theories as well as contributing to the body of knowledge. It is not geared towards development related solutions due to weak linkages between industry and higher education. Those in academia do not dialogue with industry practitioners due to poor attitude and socialisation over the years. The goals of the research are out of tune with requirements of developed and developing industry. As such, academic curriculum does not reflect the skills, knowledge as well as attitude desirable in the industries. Most graduates require re-education and a comprehensive induction course to fit in the industries.

Resolution:
There is need to forge closer collaboration and linkages between industry and higher education to ensure harmonisation of curriculum content with industry skills and knowledge requirements. This will ensure that only graduates with the right skills, knowledge and attitude are released to the industry. Industries would also link up with academia to engage in collaborative research to solve specific industrial challenges. In addition, industry can team up with academia to set up research funds to support students to conduct industry related research. There is need for a strong intellectual property rights (IPRs) regime to ensure that industry research inventions and innovations are protected as well as establishment of an elaborate research findings dissemination infrastructure.

Curriculum Articulation and Industry

Issue:
All along, university curriculum development process has been dominated by ideas from the theoretical focus of the professors. Ideas already agreed on can no longer be seen as relevant
and ideal. As such there is a mismatch between what is taught and what is expected. The divide cannot be bridged by empty rhetoric and burying our heads in the sand. We need each other at the curriculum development boardrooms.

Resolution:
There is a need for the decolonisation of our curricula and aligning of curriculum offering to the needs of the industry and society. Our education and training systems should reflect the needs of the immediate needs of the society but flexible enough to deal with the challenges of globalisation.

Quality Maintenance and Checks: Legal Frameworks

Issues:
While opening of campuses and collaborations is a well conceived idea on the basis of opening access and facilitation of higher education in the country, it may not pass the stringent requirements for world-class quality education and training that nurtures innovation and creativity. Quality is a requirement for a well balanced education and training that propels the nation to the next higher levels of development and advancement. Education and training should be of high quality that is commensurate to the value of investment that goes with it. Quality human resource is a reflection of the quality that the citizens of a nation enjoy.

Resolution:
At all costs the quality of higher education should not be compromised for any other consideration. Every institution of higher learning should offer the highest quality level of education for it to remain in the market. There is a need for the development of a legal framework to govern quality of higher education.
LIST OF ACRONYMS AND ABBREVIATIONS

ACTU  Australian Council of Trade Unions
ANT  Actor Network Theory
ANTA  Australian National Training Authority
APA  American Psychological Association
AQF  Australian Qualifications Framework
AUSI  Australian Studies Institute
AVETRA  Australian Vocational Education and Training Research Association
CAT  Continuous Assessment Test
CBT  Competence-Based Training
CE  Conventional Education
CEAI  Corporate Entrepreneurship Assessment Instrument
CEEB  American College Entrance Examinations Board
CHE  Commission for Higher Education (Kenya)
CVF  Competing Values Framework
DAAD  German Academic Exchange Service
DANIDA  Royal Danish Government
DE  Distance Education
DEB  District Education Board
DIT  Directorate of Industrial Training
DPM  Directorate of Personnel Management
DQAS  Director of Quality Assurance and Standards
EAC  East African Community
EDSAC  Education Sector Adjustment Credit
EMIS  Education Management Information System
ERM  Enterprise Risk Management
ERS  Economic Recovery Strategy
ET  Educational Technology
FCAI  Federal Chamber of the Automotive Industry
FKE  Federation of Kenya Employers
FPE  Free Primary Education
FTEF  Faculty Teaching Equivalent of Faculty
FTSE  Full-Time Student Equivalent
GIS  Geographic Information Systems
GPS  Global Positioning Systems
HECA  Higher Education Colleges Association
HRD  Human Resource Development
HRM  Human Resource Management
IGERD  Institute of Gender and Research Development
ILO  International Labour Organisation
IMF  International Monetary Fund
ISPs  Internet Service Providers
ISU  Idaho State University
ITABs  Industry Training Advisory Boards
IUCEA  Inter-University Council for East Africa
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAB</td>
<td>Joint Admission Board</td>
</tr>
<tr>
<td>JKUAT</td>
<td>Jomo Kenyatta University College of Agriculture and Technology</td>
</tr>
<tr>
<td>KCPE</td>
<td>Kenya Certificate of Primary Examination</td>
</tr>
<tr>
<td>KCSE</td>
<td>Kenya Certificate of Secondary Examination</td>
</tr>
<tr>
<td>KESSP</td>
<td>Kenya Education Sector Support Programme</td>
</tr>
<tr>
<td>KIE</td>
<td>Kenya Institute of Education</td>
</tr>
<tr>
<td>KIM</td>
<td>Kenya Institute of Management</td>
</tr>
<tr>
<td>KISE</td>
<td>Kenya Institute of Special Education</td>
</tr>
<tr>
<td>KNEC</td>
<td>Kenya National Examinations Council</td>
</tr>
<tr>
<td>KTTC</td>
<td>Kenya Technical Teachers Colleges</td>
</tr>
<tr>
<td>LANs</td>
<td>Local Area Networks</td>
</tr>
<tr>
<td>LATF</td>
<td>Local Authority Transfer Fund</td>
</tr>
<tr>
<td>MCA</td>
<td>Multi-Criteria Analysis</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MIOME</td>
<td>Mombasa Institute of Muslim Education</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MST</td>
<td>Ministry of Science and Technology</td>
</tr>
<tr>
<td>NCHE</td>
<td>National Council for Higher Education (Uganda)</td>
</tr>
<tr>
<td>NCVER</td>
<td>National Center for Vocational Education and Research</td>
</tr>
<tr>
<td>NEMA</td>
<td>National Environment Management Authority</td>
</tr>
<tr>
<td>NER</td>
<td>Net Enrollment Ratio</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non Governmental Organisations</td>
</tr>
<tr>
<td>NTF</td>
<td>National Training Framework</td>
</tr>
<tr>
<td>ODE</td>
<td>Open and Distance Education</td>
</tr>
<tr>
<td>ODL</td>
<td>Open and Distance Learning</td>
</tr>
<tr>
<td>OL</td>
<td>Open Learning</td>
</tr>
<tr>
<td>OL &amp; DE</td>
<td>Open Learning and Distance Education</td>
</tr>
<tr>
<td>PDP</td>
<td>Parallel Degree Programmes</td>
</tr>
<tr>
<td>PPP</td>
<td>Purchasing Power Parity</td>
</tr>
<tr>
<td>PSC</td>
<td>Public Service Commission</td>
</tr>
<tr>
<td>PSSP</td>
<td>Privately-Sponsored Students Programme</td>
</tr>
<tr>
<td>PTA</td>
<td>Parents Teachers Association</td>
</tr>
<tr>
<td>PULB</td>
<td>Public Universities Inspection Board</td>
</tr>
<tr>
<td>RTO</td>
<td>Registered Training Organisation</td>
</tr>
<tr>
<td>SAPs</td>
<td>Structural Adjustment Programmes</td>
</tr>
<tr>
<td>SAR</td>
<td>Self Assessment Report</td>
</tr>
<tr>
<td>SDEA</td>
<td>Second Decade of Education for Africa</td>
</tr>
<tr>
<td>SMASSE</td>
<td>Strengthening of Mathematics and Science in Secondary Schools Project</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>SSP</td>
<td>Self Sponsored Programmes</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>TAM</td>
<td>Technology Acceptance Model</td>
</tr>
<tr>
<td>TCU</td>
<td>Tanzania Commission for Universities</td>
</tr>
<tr>
<td>TVET</td>
<td>Technical and Vocational Education and Training</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>UPE</td>
<td>Achieve Universal Primary Education</td>
</tr>
</tbody>
</table>
USIU  United States International University
VET   Vocational Education and Training
VOCTEC Vocational and Technical Education
WEUCST Western University College of Science and Technology
YPs   Youth Polytechnics
Management, Leadership and Governance,
Movers of the Industry in Higher Education,
Communication Industry and High Education
and
ICT for Economic Growth in Africa
From E-Supply Chain Capability Generation to Information Technology Value Co-creation: A Perspective of E-Business Process

Jing Zhao; Yi Jiang; and Zhen Zhu – (China University of Geosciences)

1 Abstract

Firms have engaged in initiatives that link e-supply chain processes (e.g., e-procurement) across enterprises to create Information Technology value. However, it is not clear how IT is contributing to value creation across-organisation process. The objective of this paper is to investigate the process from e-supply chain capability generation to IT value creation through e-business process across-organisation. A model of e-supply chain value is developed to investigate what and how e-supply chain capabilities are realised by usage of inter-firm IT resources integration and how business value of IT is co-created in multi-firm environments. The paper tests the model using Structural Equation Modelling (SEM) with data collected from 196 manufacturers in China. Our results provide theoretical support for a dynamic process that distinctive e-supply chain capabilities embedded in e-business process lead to process performance first and then financial performance and network performance. We find that new e-supply chain capabilities (ESCC) act as integrated process enablers between upstream and downstream e-business process to realise e-supply chain value for all partners (e.g. supplier and customer).

Keywords: e-business process, e-supply chain capabilities, inter-firm IT resources and e-supply chain value.

2 Introduction

Over the last decade, e-business technologies, specifically the Web, have revolutionised supply chain design, management, and control. IT infrastructure, process integration and partner alignment can be blended with inter-organisational processes to develop higher-order capabilities for demand sensing, operations and workflow coordination, and global optimization of resources (Barua et al 2004; Devaraj et al 2007; Rai et al 2006; Wu et al 2006). The firms have engaged in initiatives that link e-supply chain processes (e.g., e-procurement) across enterprises to create IT value (Boone et al 2007; Dong et al 2009). Consider the example of Haier Group (a world’s fourth largest white goods manufacturer company and one of the world’s top 500 companies in China), which has automated and streamlined to seek its best suppliers in a globally competitive market with e-procurement platform, and processed customised orders with B2C platform. The effect of e-supply chain on Haier can be seen from their cycle times from sales order to procurement order being reduced, and from more than seven days in 2000 to less than one hour in 2002 (Li et al, 2004).

Despite the widespread adoption of e-business, it is not clear how IT is contributing to value creation in supply chain. There are a number of factors that we accept as important and necessary conditions in the chain of IT value creation (Kohli and Grover, 2008). From a resource-based
Knowledge Management for Industrial Innovation and Development

perspective, prior literature has identified that e-supply chain capabilities can serve as a catalyst in transforming IT-related resources into higher value for a firm (Devaraj et al 2007; Rai et al 2006). The thesis has expanded to examining complementary resources, capabilities and other mediating factors in the chain of IT value creation. However, it is unclear how IT value emanates from digital capabilities in across-organisation process. It raises important new issues of co-create value from IT in across-organisation process that cannot easily be addressed by current IT value research.

This paper investigates the process from e-supply chain capability generation to IT value creation through upstream and downstream e-business process. In this paper, the IT value co-creation in e-supply chain is viewed as that new e-supply chain capabilities (ESCC) drive value co-creation via e-business processes linked with different partners. We regard e-supply chain value as business value of IT, which consisted of process performance, financial performance and network performance. The model of e-supply chain value is proposed and tested using SEM with data collected from 196 manufacturing firms in China. Our results provide theoretical support for a dynamic process that distinctive e-supply chain capabilities embedded in e-business process lead to e-Supply Chain Value creation, which appears process performance first and then financial performance and network performance.

3 Literature Review

Traditionally, IT impacts in the context of supply chain management (SCM) have been investigated with a focus primarily on specific technologies and innovations linked with partners, such as e-business (Boone et al 2007), electronic data interchange (EDI) (Chatfield et al 2000), and other inter-organisational information systems (IOS) (Iskandar et al 2001). Recent studies using Resource-based view of the firm (RBV) as a theoretical base have focused on the relationships between resources, capabilities and business value (Kohli and Grover, 2008). These researches can be divided in two streams.

The first stream of research suggests that a firm’s overall e-supply chain effectiveness is determined by its investment in e-business for creating unique Internet-enabled capabilities (Barua et al 2004; Dong et al 2009). For example, Barua et al (2004) study firms’ abilities to deploy three resources - IT, processes, and readiness of customers and suppliers - to create business value. Their empirical results show that online informational capabilities have a positive impact on operational and financial performance.

The second stream of literature suggests that firms derive e-business benefits through intermediate business processes (e.g., e-procurement, CRM) (Ray et al 2005). Ray et al (2005) argue that adopting the effectiveness of business process as a dependent variable is a more appropriate way to test resource-based logic than adopting overall firm performance as a dependent variable. For these reasons, it is important to focus on process performance as a feasible path to e-business value. Also, this perspective is used for analysing e-supply chain integration, e.g., Rai (2006) and Barratt and Oke (2007).

However, the literature is scarce with studies of the complex process regarding co-creating business value of IT in e-supply chains. Prior works lack research for these intermediate factors forming the linkage and impacting business value of IT in supply chain.

4 Research Model and Hypothesis

In this paper, we use RBV together with e-business process view to explain how focal firm and partners’ IT resources integrated in across-organisation process applications to create e-supply chain capability and further gain co-creation value. The research model of e-supply chain value will be developed to investigate the process of e-supply chain capabilities generation and e-supply chain value creation. We characterise this model with three dimensions and six constructs. The definitions of constructs in the model are summarised in Table 1. These dimensions include Inter-firm IT Resources Integration, e-Supply Chain Capability and e-Supply Chain value.
In order to study in depth the process from e-supply chain capability generation to value creation through e-business process, we divide the process into three stages: (1) Generation of e-supply chain capability; (2) Creating e-supply chain process performance; (3) Generation of e-supply chain value. A series of hypotheses are developed to test the relationships between constructs.

Table 1. Definitions and Constructs in the Model

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definitions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal IT Resources Integration (IITR)</td>
<td>The extent to which a firm integrates its Internal-organisational IT resources (including information systems, employees and managers knowledge) to construct e-business processes in e-supply chains for online information sharing and transaction execution across the value chain.</td>
<td>Melville et al (2004)</td>
</tr>
<tr>
<td>Partner Resources (PR)</td>
<td>The degree to which a firm's partners (e.g., suppliers, retailers and customers) are willing and ready to conduct business or service activities electronically via e-business processes in e-supply chains.</td>
<td>Melville et al (2004)</td>
</tr>
<tr>
<td>e-Supply Chain Capability (ESCC)</td>
<td>The ability that a firm uses e-business technology to share information and accomplish transaction and coordinate activities electronically with partners (e.g., suppliers, retailers and customers) through e-business processes in supply chains (e.g., e-procurement, e-ordering, and CRM). In this paper, e-Supply Chain Capability consists of three parts in upstream and downstream supply chain. They are called e-Procurement capability (EPC), e-Ordering Capability (EOC) and e-CRM Capability (CRMC).</td>
<td>Zhao et al (2008)</td>
</tr>
</tbody>
</table>

**Creating E-Supply Chain Capability**

In this stage, the generation of e-supply chain capability (ESCC) is related to usage of inter-firm IT resources integration via e-business process. Melville et al (2004) argue the IT and non-IT resources and the business processes of electronically connected trading partners shape the supply chain ability to generate operational efficiencies impacts via IT. In this paper, Inter-firm IT resources integration includes Internal IT resources integration for focal firm and Partner Resources for supply chain partners. Concerning Internal IT resources integration, prior SCM studies have realised that IT technology contribute to e-supply chain capability (Rai et al. 2006; Wu et al. 2006). For an organisation with a high level of information systems, it should be able to transmit, combine and process data from business partners, such as, suppliers/vendors. As noted by Wu et al (2007), the organisational learning ability with IT professional knowledge is positively related to the use of both coordination and transaction e-procurement applications capability (Wu et al 2007). Together these studies suggest the critical role of IS integration technology and IS application...
knowledge in improving the effectiveness of e-supply chain capability in their e-procurement, e-ordering, and CRM. This leads to the following hypothesis:

1. H1: Internal IT resources integration in focal firm has a positive impact on the level of e-procurement capability.
2. H2: Internal IT resources integration in focal firm has a positive impact on the level of e-ordering capability.
3. H3: Internal IT resources integration in focal firm has a positive impact on the level of CRM capability.

Electronic integration of supply chain processes across organisations requires the development of IT resources by both the focal firm and its trading partners (Melville et al 2004; Zhao et al 2008). Hence, partner resources support (includes suppliers, retailers) is considered an external resource to support process connection (Dong et al 2009) and develop e-supply chain capability from collaborative partner relationship perspective (Dewan et al, 1998). Even if a firm has the necessary IT applications to do business online with customers and suppliers, a lack of partner’s readiness on the part of customers or suppliers will impede the adoption of the technology and IT value creation (Barua et al 2004). Thus, we hypothesize the following:

1. H4: Partner resources have a positive impact on the level of e-procurement capability.
2. H5: Partner resources have a positive impact on the level of e-ordering capability.
3. H6: Partner resources have a positive impact on the level of CRM capability.

Creating E-Supply Chain Process Performance

In this paper process performance refers to inter-organisational IT-based value co-created by e-supply chain capabilities via upstream and downstream e-business processes. More and more literatures suggest that process performance should be considered as a critical competitive power measurement in recent SCM studies (Dehning et al 2007; Dong et al 2009). e-Supply chain capability can improve process performance in operations by sharing key planning and schedules information and coordinating fulfilling orders and customer services (Dehning et al 2007; Gunasekaran et al 2004a). From e-supply chain process level, it is optimal perspective to take an in-deep look at co-creation value emanates from robust collaborative relationships among firms. Therefore, we propose the following hypotheses.

1. H7: e-Procurement capability has a positive impact on e-procurement process performance.
2. H8: e-Ordering capability has a positive impact on e-ordering process performance.
3. H9: CRM capability has a positive impact on CRM Process performance.

Generation of E-Supply Chain Value

In this paper, generation of e-supply chain value combines two relationships between process performance, financial performance and collaborative network performance. On the one hand, focal firm can capture effects of e-supply chain process performance improvement to the direct overall firm financial performance. On the other hand, through e-supply chain process integration and collaboration, focal firm also improves collaborative network outcomes together with their partners to gain new competitive advantages.

E-Supply chain can improve financial performance in operations by coordinating marketing forecasts, production schedules, and inbound logistics through the availability of enhanced informational support for operations planning and control resulting in reduced levels of work-in-process and higher capacity utilisation (Gunasekaran et al 2004b). It may be important to simultaneously consider measuring the full direct impact of e-supply chain process use on financial performance. Therefore, we propose the following hypotheses.
1. H10: e-Procurement process performance has a positive impact on firm financial performance.
3. H12: e-CRM process performance has a positive impact on firm financial performance.

In this paper, co-creation of value focuses on overall e-supply chain operations effectiveness due to each firm in this network benefits from such relationships. Collaborative network performance can be associated with e-supply chain has recently been demonstrated by Straub et al (2004). They argue that degree-symmetric information sharing and dependence in e-supply chain are positive related to networked organisational performance. The greater the degree of process applications between partners via e-supply chain, the greater its share of net value from deployment of the usage. This leads to the following hypothesis:

2. H14: e-Ordering process performance has a positive impact on collaborative network performance.
3. H15: e-CRM process performance has a positive impact on collaborative network performance.

5 Research Methodology

Data Collection

This study used the survey method to collect primary data from senior IS managers and business managers of manufacturing firms in China. A five-point Likert scale (from very well to very bad) was used to collect most responses. The data collection involved manufacturing firms engaged in e-supply chain that had the ability to interact with suppliers and customers over the Web. During the whole process, we have sent out 600 surveys and received 233 back. Ten responses had too many missing data and were discarded. Twenty-seven companies were discarded because they didn’t adopt information systems for SCM except Internet access. There were 196 usable responses and the usable response rate was about 33%. In the sample, 65% of firms belong to traditional manufacturing group, such as China Petroleum & Chemical Corporation (Sinoper), Shanghai Volkswagen and Honda China. About 35% firms belong to high-tech manufacturing group, example include Lenovo, Samsung China, Benq, Foxconn, Chinabird, Huawei and et al. We found no significant differences of organisational size and sales in the two groups by using one-way ANOVA.

Data Analysis

A covariance-based Structural Equation Model (SEM) analysis was used for data analysis. Exploratory factor analysis (EFA) was first conducted using SPSS 16.0 to validate the proposed factor structures. EFA showed the presence of ten factors in the data and the factor structures matched the ones we identified in the research model. The results of measuring IT related resources and e-supply chain capability represented two and three factors solution with 64% and 77% cumulative percent of variance extracted respectively. These items employed in multi-level performance revealed five factors with 85% cumulative percent of variance extracted. The values of KMO are all above 0.85 with significant Bartlett’s test of sphericity at 0.05 levels. The factor structures suggested by the EFA match the one proposed in the research model.

Next, confirmatory factor analysis (CFA) was conducted to check the reliability and validity of the measurement model using Lisrel8.72. Construct reliability was measured using Cronbach’s alpha and composite reliability. The Cronbach’s alpha ranges from 0.79 to 0.92 for the 10 constructs, indicating a high internal consistency (Straub et al 2004). Further, composite reliability was evaluated and found to be similar, based on which we may conclude that the reliability for these
constructs is adequate (Straub et al 2004). Convergent and discriminant validities were examined by both factor loadings and a correlation matrix. All estimated standard loadings are significant (p<0.001), suggesting good convergent validity. All square root of AVEs were above 0.707 (AVEs were above 0.50), and they are much larger than all cross-correlations. In sum, the results indicate good convergent and discriminant validity.

The research model was tested with Lisrel 8.72, results are presented in Fig. 1. Several GFI indexes of the structural model have been widely used in IS research arena. The normed \( \chi^2/\text{degree of freedom} \) is 2.4, which is within the recommended level of 3.0 (Barua et al 2004). The incremental fit indices include the normed fit index (NFI), Non-Normed Fit Index (NNFI), comparative fit index (CFI), and incremental fit index (IFI), which are all higher than 0.9. This implies a good model fit (Hu L. et al 1999). Results suggested that the structural model fit the data adequately.

**Hypothesis Tests**

Out of 15, 14 hypotheses are supported in our study; we also provide an overall validation of the model of e-supply chain value shown in Fig. 1.

Since our model proposes that e-supply chain capability (ESSC) are intermediate transferring capabilities between inter-firm IT resource integration and process performance, we test these effects in three upstream and downstream processes at the same time. In the e-procurement process, only Internal IT resources integration of a focal firm have a positive effect on e-procurement capabilities (EPC) (\( \beta=0.64, p<0.001 \)), while partner resources does not have a significant impact (\( \beta=0.12, p>0.05 \)). Thus, H2 is not supported. In the e-ordering process, the results indicate the Internal IT resources integration (\( \beta=0.61, p<0.001 \)) is more likely to be associated with the development of e-ordering capability (EPC) than partner resources (\( \beta=0.15, p<0.05 \)). Similarly, the results also predict the impact of Internal IT resources integration (\( \beta=0.67, p<0.001 \)) and partner resources (\( \beta=0.16, p<0.05 \)) on the generation of CRM capability (CRMC). Therefore, these results support the hypothesis that firms have engaged in integrating inter-firm IT resources together with partners to create unique e-supply chain capability through upstream and downstream e-business processes.

We further tested the e-supply chain process performance co-create by e-supply chain capability in upstream and downstream e-business processes. Hypotheses H7, H8, and H9 are all strongly supported at 0.001 significance level, demonstrating that ESSC involving in procurement (\( \beta=0.57, p<0.001 \)), ordering (\( \beta=0.66, p<0.001 \)), and the CRM process (\( \beta=0.65, p<0.001 \)) leads to improved individual process performance respectively.

We also identify the role of process performance in transforming from e-supply chain capability to financial performance (FPF) and collaborative network performance (CNPF). The model shows a significantly positive linkage between e-supply chain process performance and financial performance in the e-procurement (\( \beta=0.32, p<0.001 \)) with higher magnitude and greater significance than in the e-ordering (\( \beta=0.30, p<0.05 \)) and CRM (\( \beta=0.14, p<0.001 \)). Therefore, H10, H11, and H12 are supported in this study. H13, H14, and H15 predicted that process performance also would impact on collaborative network performance.
6 Conclusions

The empirical results provide strong overall validation of causal relationships between the constructs in the three stages, forming a dynamic chain among inter-firm IT resources integration, e-supply chain capabilities and e-supply chain value. The results indicate that firms use collectively of inter-firm IT resources to gain e-supply chain capabilities which via implementing the e-business process more efficiently and effectively. We argue that the core competencies of the e-supply chain, as associated with e-supply chain processes, are achieved by e-supply chain capabilities, which are as integrated process enablers between upstream and downstream processes to realise benefits for focal firms and all partners (for example supplier and customer). Furthermore, the impact of financial performance and collaborative network performance are mediated by process performances in procurement, ordering, and CRM process. This research expands our understanding of the dynamics and completeness of transformation for the e-supply chain implementation success.

Finally, we want to point out limitations of this study. Our data relies on a single Asian country. Sample data from one or more western countries are needed to further generalize the findings. This cross-national comparison may reveal the potential impact of national differences (e.g., national culture and country-specific e-supply chain practices).

6 References


performance: The role of production information integration in the supply chain,” Journal of Operations Management, 25, 1199-1216


Supply Chain Management in the Manufacturing Sector: Components, Benefits and Challenges

1 Kitainge, Kisilu (PhD) and 2 Koech, William K. – (1Chepkoilel University College, Kenya, and 2Rift Valley Institute of Science and Technology, Kenya)

1 Abstract

The 21st century market is characterised by high variety and relatively low demand for individual products, thus mass customisation, managed through virtual organisation is the prevalent manufacturing environment. Kenya manufacturing sector whose share of gross domestic product (GDP) has increased very little over the past two decades contributes about 13 percent of the GDP. The possible reasons among many include competition from cheap products, inadequate research and development, insufficient management, low capacity utilisation and limited technology development.

The objective of this study was to survey the extent of implementation of supply chain management (SCM) in the manufacturing sector as they strive to improve their productivity with the view to stay put in this era of global markets competition. The study was conducted in selected manufacturing firms in Nakuru Town. It assessed the components, levels, challenges and benefits of SCM in the manufacturing sector. Mixed methodology was adopted because it gives a deeper understanding of a phenomenon. Stratified random sampling technique was used in selecting the manufacturing firms and data was collected through questionnaire, and interview schedules.

Based on the findings the study recommended management to bring to the attention of all employees the awareness of SCM, facilitate identification of components, and Levels of SCM in the manufacturing sector.

1 Introduction

Supply chain management (SCM) is referred to as a connected series of activities which is concern with planning, co-coordinating and controlling materials, parts and finished goods from suppliers up to the customers (Stevens, 1989). SCM is presented as an integrative philosophy to manage the total flow of a distribution channel from supplies to the ultimate user (Cooper and Ellram, 2001).

SCM focuses on the management of inventory through the entire supply chain. It represents the system approach to viewing the channel as a whole rather than as a set of fragmented parts. This study is based on the systematic approach to management and organisation, a management thought under modern theory of management developed after 1950. This system theory looks at an organisation as a whole examining all relevant organisational variables simultaneously. The approach identifies the parts of the organisation and looks at how these parts operate interdependently. The foundation of the system theory is that a manager cannot emphasise only one aspect of organisational management while ignoring other aspects, whether internal or parts of outside environment.
Figure 1: System Approach Management


Figure 1 represents system approach management; an integration of the essential factors structure, technique and information, people, purpose and objectives: involving a process or a set of flows for instance flow of information, people, money, materials, goods and services and a system of projects that represents the work which the organisation performs.

An organisation transforms inputs into outputs (Prasad, 2003). The inputs may be; raw materials, information, human resources, equipment, energy, and by applying certain conversion processes transforms these inputs into output of finished goods, services and information. In this process of conversion the organisation must take into consideration the dynamics of the outside environment and must continually interact with the external variables.

Figure 2 represents a system of interconnected and interrelated elements or components, which operate together to achieve goals in an organisation.

Figure 2: Relationships between Plans, Inputs, Process, and Outputs


Three basic inputs that enter the processor of the system viz: information (technology), energy (motive power), and raw materials to be transformed. If we consider a manufacturing company, outputs are goods or materials. A supply chain of a manufacturing enterprise is a network of facilities that performs functions of procurement of materials to intermediate and finished products and distribution of finished production to customers (Billington et al, 1993).

Globalisation of markets has put tremendous pressure on manufacturing enterprises to be competitive. To cope with competition pressures, a new paradigm in manufacturing known as agile manufacturing is emerging (Lysons and Famington, 2006). Agile production is the latest stage of a development away from the mass production of the 1970s, through the decentralised production of the 1980s and on to the supply chain management, rates of technician innovation, customers and requirements for customisation and choice. The main drivers of agility include rapidly changing and unpredictable markets, the rapid competitive priorities of responsibility, shorter life cycles, concern
for the environment and international competitiveness. (Lysons and Famington, 2006) identified four underlying components of agility as delivering value to the customer, being ready for change, valuing human knowledge, and forming virtual partnerships.

Lysons and Famington, (2006) identified core characteristics of agile manufacture as shown in Table 1.

Table 1: Characteristics of Agile Manufacture in Purchasing and Supply Chain  

| Source: Lysons and Famington (2006) |

Supply chain runs from suppliers through to customers or stores and requires process technology and people for success; this is true regardless of the industry. SCM uses a tool called just in time (JIT); a manufacturing system which states that supplies are purchased in the time to be used, parts are produced in time to be transported and sold (Kalpakjian, 1991). It is a system in which both the movement of goods during production and deliveries from suppliers are carefully timed so that at each step of the process the next batch arrives for processing just as the preceding batch is completed. This results to a system with no idle items waiting to be processed (Stevenson, 1999). Figure 1.3 shows the flow of materials and information flow in supply chain management.

Figure 3: Generic Configuration of a Supply Chain Manufacturing

![Figure 3: Generic Configuration of a Supply Chain Manufacturing](image)

Source: Vrijhoef (2000)

As shown in Figure 3, the flow of materials starts from the supplier to the user. This flow is often referred to as downstream flow. While the information flow starts, that is, orders, schedule forecast starts from the customer back to the supplier; this flow is referred to upstream flow.

Since its emergence SCM has resulted in an autonomous status of concept in industrial management theory, and a distinct subject of research (Bechtel and Yayaram, 1997; Cooper et al, 1997). In practice SCM is a network of organisation that are involved, through upstream and downstream linkages in the different processes and activities that produce value in the form of production and services in the hands of the ultimate customers.

Figure 4: Supply Chain Management Model

![Figure 4: Supply Chain Management Model](image)

Source: Vrijhoef (2000)
Supply chain management emerged to compete with purchasing and supply materials management and logistic. There is a greater probability that it will spread into wide usage as it encompasses the whole spectrum of materials related activities. Supply chain is today more widely employed to describe the various organisation and processes through which products pass through on its way from its original form as a material to its point of ultimate consumption (Koskela, 2000). This flow of materials or product is sometimes referred to as a down stream flow and is accompanied in the supply chain by the upstream flows of information from customers to the supplier’s, as shown in Figure 4.

3 Theory of Supply Chain Management

The traditional way of managing the supply chain is based to a large extent on a transformation view of a product where as supply chain management (SCM) is primarily based on a flow view of production. The transformation view suggests an independent control of each stage of production, whereas the flow view suggests a focus on the control of the total flow of production Related to this is the concept that the supply chain can be seen as a “Logical factory” thus, the factories can also be used to improve supply chain Luhtala et al (1994) on the other hand, practices particular to quality control in SCM have a third basic conceptual basis, which is the view of production as a value generation (Koskela, 2000). Table 2 shows the characteristic differences between traditional ways of managing the supply chain and SCM.

Table 2: Characteristics Difference between Traditional ways of the chain and supply chain management

<table>
<thead>
<tr>
<th>Element</th>
<th>Traditional management</th>
<th>supply chain management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory management Approach</td>
<td>independent effort</td>
<td>joint reduction of inventories</td>
</tr>
<tr>
<td>Total costs approach</td>
<td>minimise firms cost</td>
<td>channel</td>
</tr>
<tr>
<td>Time horizon</td>
<td>short term</td>
<td>long term</td>
</tr>
<tr>
<td>Amount of information</td>
<td>limited to needs of</td>
<td>As required for planning and</td>
</tr>
<tr>
<td>Sharing and monitoring</td>
<td>currents transaction</td>
<td>monitoring process</td>
</tr>
<tr>
<td>Levels in the channels</td>
<td>between channel pairs</td>
<td>Multiple contacts between levels in firms and levels of channels</td>
</tr>
<tr>
<td>Joint planning</td>
<td>transaction based</td>
<td>on going</td>
</tr>
<tr>
<td>Compatibility of corporate</td>
<td>not relevant</td>
<td>compatibility at least for key Relationships</td>
</tr>
<tr>
<td>Philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel leadership</td>
<td>not needed</td>
<td>needed for co-ordination</td>
</tr>
<tr>
<td>Amount of sharing risks and</td>
<td>each treated separately</td>
<td>risks and rewards shared over the long term</td>
</tr>
<tr>
<td>rewards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed of operation information</td>
<td>warehouse orientation</td>
<td>distribution centre</td>
</tr>
<tr>
<td>and Inventory levels</td>
<td>(storage safety stock)</td>
<td>information and orientation (inventory)</td>
</tr>
<tr>
<td>Inventory levels</td>
<td>interrupted by barriers to flow, localised to localised channels</td>
<td>velocity interconnecting flows; chit, quick response across the channel</td>
</tr>
</tbody>
</table>

Source: Copper and Ellram (1993)

Customers play key role in a supply chain. In supply chain the focus is the customer(s) because the customers are changing and so is the nature of their demand. Customers demand is becoming individualistic, leading to product variations. The multitude of product variations, the complexity, and exacting nature of these products coupled with increased international competition, the need to reduce the manufacturing cycle time and the pressure to cut production costs requires the development of manufacturing technologies and methods that permit small production to gain economic advantage (Singh, 1995).
Figure 5: Customer and Manufacturing Enterprise

Source: Singh (1995)

Figure 5 illustrates that the customer is an integral part of the supply chain; the primary purpose for the supply chain is to satisfy customer needs.

Taking into consideration the central role taken by the customer, it becomes critical to note that for a manufacturing organisation to remain competitive, it must deliver products to customers at the best possible quality, and the minimum lead time starting from the product conception stage to final delivery service and dispersal (Singh, 1995). From customer's point of view a company, has to respond to smaller and smaller market niches quickly with products that will be built in lower and lower volume, that is, a future successful manufacturing organisation will be a virtual co-operation that instantaneously respond to customer needs.

Based on the customer and manufacturing enterprise; it is true to say that manufacturing entail a large number of interdependent activities consisting of distinct entities such as raw materials tools, machines, human beings and should properly be regarded as a system. It is a complex system because it comprises of many diverse physical and human elements some of which are difficult to predict and control such as raw materials, prices, market changes, human behaviour, and performance (Kalpakjian, 1991).

Again supply chain concept has six specific items: specification of requirement, sorting and acquisition of materials and services, negotiation and management of contracts/project control and movement of materials into and through production and other operational processes inspection and assurance handling, storage and distribution to the point of need, control and disposal of waste materials. Therefore it is important to note that a supply chain of manufacturing enterprise is a network of facilities that performs functions of procurement of materials to intermediate and finished products and distribution of finished production to customers (Lee and Billington, 2001).

It becomes essential also to understand a chain in order to predict its behaviour and the ability to predict what allows you to control the core processes understanding, prediction and control enables manipulation of inputs and monitor outputs to see what happens, and success depends on a larger part on how you select the inputs and outputs you want to work with. Another key to success is being prepared to cope with input-output relationship. It is important to note the importance of feedback on supply chain make sure that you keep enough information flow across your chain that can respond to changing conditions quickly and effectively (Microsoft Dynamics, 2006).
The above statement explains why many people across organisation are engaged in supply chain activities delivering sells or services to customers shopping products. Negotiating with suppliers and trading partners, managing inventory or other critical tasks. Supply chain help connect information from teams. In doing so, help empower people to perform with optimal productivity maintain profitable relationship with vendors and business, and satisfy customers (Microsoft Dynamics, 2006)

4 Methodology

Survey method was used to collect detailed description of SCM with a view to analyse, interpret, and report the status in order to guide the practice in the immediate future but also to determine the adequacy of status by company with the established standards (Lokesh, 1984). In this research design manufacturing industries were picked using stratified, random sampling technique, which was considered appropriate for obtaining reliable results. It is important to note that stratified sample normally correct any disproportions. According to Leedy (1985) the following factors were considered while choosing the sample size; the homogeneity of sample, available resources, time and size of the population.

The target population of the study was manufacturing industries in Nakuru town, Nakuru district, in the Rift valley province of Kenya in 2007. Manufacturing sector has always been listed as one of the most important vehicle for economic development whose GDP as indicated early has been 13 percent and in the Vision 2030, it has been again listed as a wheel for economic prosperity in this country. This study could still be carried out in any other major like Nairobi, Eldoret, Thika, and Mombasa because the area under study is critical for the survival of the manufacturing sector amid the competition experienced in the manufacturing sector worldwide. Manufacturing industries are categorised into: construction and engineering, Electrical Engineering, Food and Agriculture, Textiles, Mechanical Engineering, and Chemicals as indicated below.
### Construction and Engineering

1. Building and Civil Engineering/General Engineering
2. Carpentry and joinery
3. Electrical communication, installation, fitting and wiring
4. Painting renovation, fitting and vertical blinds
5. Plumping and water proofing
6. Sewers and drainage construction
7. Steelworks and fabrications
8. Steel plants, steam boilers and gas installation
9. Lift installation and elevators
10. Terrazo works/flooring
11. Partitioning and suspended ceilings installation
12. Quarry ballast, concrete blocks and nonmetallic mineral products
13. Roofing contracts
14. Road construction, landscaping and excavation
15. Fire system, installation and commission
16. Glazing
17. Electronic communication/installation
18. Electrical contractors
19. Mining of semi precious stones and materials
20. Gemstone cutting, processing of gems and precious stones (jewelry)
21. Woodwork (carving, furniture and fixtures)
22. All contractors
23. Irrigation Engineering
24. Drilling/borehole contractors
25. Excavators & Back filling contractors
26. Saw millers

### Textiles

1. Tailoring
2. Dry – cleaning
3. Weaving, embroidery, spinning, knitting
4. Cotton ginneries
5. Dyeing
6. Tanneries
7. Sisal processing
8. Hides and skins processors
9. Curtain material processors
10. Leather/fur processing
11. Footwear manufacturers

### Mechanical Engineering

1. Crankshaft grinding
2. Panel beating and spray painting
3. General repair and maintenance
4. Metal works.
5. Transport operators
6. Motor cycle and bicycle assemblers and garages
7. Lift assemblers and maintenance firms
8. Body builders
9. Spare parts manufacturers/ reconditioning/ engravers
10. General fabrication and aluminum metalwork

### Electrical Engineering

1. Computer engineering installation, repair and maintenance
2. Data processing
3. Software development
4. Networking
5. Power generation
6. Telephone equipment wiring, installation and maintenance
7. Electrical rewinding and repairs
8. Cinematography
9. Colour separation and processing, that is, studios
10. Advertising and sales promotion material design and production
11. Alarm installation and electric fencing
12. Air conditioning, refrigeration and ventilation

### Food and Agriculture

1. Beverages, alcoholic drinks processing
2. Prepackaged foods
3. Fresh produce/prepacked foods
4. Horticulture and flower firms
5. Abattoirs (butcheries), meat processing firms
6. Animal feeds
7. Fish/sea foods products
8. Jaggeries
9. Coffee/tea processing
10. Bakeries, confectioners and food compounders
11. Millers – posho/grain

### Chemicals

1. Printing and publishing and screen printing
2. Pulp, paper and paper board processors
3. Petroleum gas and coal products
4. Paint manufacturers
5. Organic chemical and compounds, packing and pre-packing of the same
6. Glass products
7. Chemical for spray products, pest control product
8. Photocopying, photographic studios
9. Water treatment and filtration works
10. Agricultural chemicals, fertilizers packers and processors.

---

**Source:** Republic of Kenya (2006) Kenya bureau of standards levy section

**Sampling Procedure**

There were 30 manufacturing firms in Nakuru town. The firms were stratified by the category of industry out of which: 2 were construction and engineering, 12 food and agriculture, 8 textiles and 8 chemical. Stratified random sampling was suitable because of the four types of industries...
represented in the Nakuru town. Simple random sampling was used to select the industries of each category. There were 15 industries, which was at least 50 of the manufacturing industries in the Nakuru town, and were distributed as, Construction and engineering 2, Food and agriculture 6, Textile 4, Chemical 4.

The use of stratified sampling has the effect of reducing sample error due to difference in-group composition (Gall, Burg and Gall, 1996). The sampling procedure involved listing of all manufacturing industries into 4 categories of: construction and engineering, food and agriculture, textile, and chemical, then a simple random sampling were used to obtain firms from each category.

**Sample Size**

Purposive sample was used to select at least one respondent that took part in this study in each of the 15 industries. This was done purposively to obtain respondent with specific or insight and comprehensive knowledge on the subject of the study. There were 28 respondents that made up the sample size. Table 3 represent the number of respondents used in the study.

<table>
<thead>
<tr>
<th>Category of Industry</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>2</td>
</tr>
<tr>
<td>Food and agriculture</td>
<td>11</td>
</tr>
<tr>
<td>Textile</td>
<td>7</td>
</tr>
<tr>
<td>Chemical</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

**Instrumentation**

Two research instruments were developed based on the global SCM survey 2006, to help in collecting data on SCM. The instruments developed were Chief Executive officer (s) Questionnaire (CEOQ) and Structured Interview Schedule (SIS).

The questionnaire had both close-ended items and open-ended items. Each respondent had to respond to the items by himself/herself simple language was used in the questionnaire items. It had 16 items that touched on components, levels, challenges and benefits of SCM.

Structured Interview Schedule was administered to obtain data for qualitative analyse. Face-to-face interview was conducted that involved some of the managers: general managers, finance, marketing, and human resource managers. The interview facilitated gathering a lot of information and in greater depth. It also helped the researcher to collect supplementary information about the SCM in the manufacturing sector both in terms of the professional training and the environment that was of great importance in interpreting the data.

**5 Data Collection Procedures**

The questionnaires were administered and collected by the researcher in person. On the interview schedules, the researcher administered all the interviews. This was essential to enable the researcher access to respondents’ opinions, views, and attitudes on SCM Implementation for purposes of accurate interpretation hence better qualitative analysis.

**Data Analysis**

Data collected were in two categories. The first set consisted of data generated by use of CEOQs and the second set data generated by the interview schedules. SPSS Package was used to analyse data. While data collected from the interview schedule was analysed qualitatively. Frequencies, means and
percentages were determined and subsequently used to describe the extent of implementation of supply chain management in the manufacturing sector.

6 Data Presentation and Analysis

Benefits of SCM to the Manufacturing Sector

The objective of this study in connection with benefits was to establish the benefits of SCM to the manufacturing sector. Some of the benefits of SCM studied earlier were presented to the respondents in the questionnaire for them to rate on a likert scale and to subsequently confirm the benefits of SCM sought in this study.

Table 4: Frequencies on Benefits of SCM in Manufacture Sector

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Yes</td>
<td>26</td>
<td>92.9</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: SPSS results 2007

Figure 6 shows the number of Yes responses is 26 (92.9%) and No 2(7.1%) on the benefits of SCM in the manufacturing sector. The chi-square frequencies were computed for the item on benefit of implementation of SCM in manufacturing sector is as illustrated in Table 4.

Table 5 shows the ratings of the benefits of SCM in manufacturing sector in frequency (F) and percentage.

Source: SPSS Results (2007)
Table 5: Ratings of the Benefits

<table>
<thead>
<tr>
<th>Benefits</th>
<th>HA</th>
<th>A</th>
<th>NI</th>
<th>D</th>
<th>HD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Improve forecast accuracy</td>
<td>7</td>
<td>25.0</td>
<td>20</td>
<td>71.4</td>
<td>1</td>
</tr>
<tr>
<td>Improve planning and scheduling</td>
<td>8</td>
<td>28.6</td>
<td>19</td>
<td>67.9</td>
<td>1</td>
</tr>
<tr>
<td>Reduced inventory levels</td>
<td>7</td>
<td>25.0</td>
<td>20</td>
<td>71.4</td>
<td>1</td>
</tr>
<tr>
<td>Increase asset utilisation</td>
<td>7</td>
<td>25.0</td>
<td>19</td>
<td>67.9</td>
<td>1</td>
</tr>
<tr>
<td>Reduce replenishment</td>
<td>7</td>
<td>25.0</td>
<td>20</td>
<td>71.4</td>
<td>1</td>
</tr>
<tr>
<td>Reduce cost for logistics</td>
<td>9</td>
<td>32.1</td>
<td>17</td>
<td>60.7</td>
<td>1</td>
</tr>
<tr>
<td>Improve customer service</td>
<td>11</td>
<td>39.3</td>
<td>17</td>
<td>60.7</td>
<td>-</td>
</tr>
<tr>
<td>Reduce volume of errors</td>
<td>11</td>
<td>39.3</td>
<td>16</td>
<td>57.1</td>
<td>1</td>
</tr>
</tbody>
</table>

HA-Highly Agreed    A-Agreed    NI-No Idea    D-Disagreed    HD-Highly Disagreed

Source: SPSS result 2007

Table 6: Frequencies on Benefits of Implementation of SCM

<table>
<thead>
<tr>
<th>Likert</th>
<th>Observed (O)</th>
<th>Expected (E) Residual</th>
<th>Scaling</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.13</td>
<td>1</td>
<td>3.1</td>
<td>-2</td>
</tr>
<tr>
<td>3.88</td>
<td>1</td>
<td>3.1</td>
<td>-2</td>
</tr>
<tr>
<td>4.00</td>
<td>11</td>
<td>3.1</td>
<td>7.9</td>
</tr>
<tr>
<td>4.13</td>
<td>4</td>
<td>3.1</td>
<td>0.9</td>
</tr>
<tr>
<td>4.25</td>
<td>1</td>
<td>3.1</td>
<td>-2.1</td>
</tr>
<tr>
<td>4.50</td>
<td>3</td>
<td>3.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>4.63</td>
<td>3</td>
<td>3.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>4.75</td>
<td>2</td>
<td>3.1</td>
<td>-0.1</td>
</tr>
<tr>
<td>5.00</td>
<td>2</td>
<td>3.1</td>
<td>-1.1</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS Frequencies test result 2007

The chi-square test statistics for the same item, benefits of SCM were tabulated in Table 7.

Table 7: Chi Square Test on the Benefits of Supply Chain Management

<table>
<thead>
<tr>
<th>Item</th>
<th>Chi- square</th>
<th>df</th>
<th>p-value</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits of SCM Implementation</td>
<td>25.357 (15.507)</td>
<td>8</td>
<td>1.860</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Source: SPSS Result (2007)
The Calculate chi-square value (25.357) is greater than the table Chi-square value (15.507) therefore the null hypothesis was rejected at 0.05 level of significance.

7 Discussion and Conclusion

Benefits of Supply Chain Management

The results (Table 4) obtained in the study on the benefits of supply chain management in the manufacturing sector indicated that 26(92.9%) respondents said that there are benefits while 2(7.1%) of the respondents said there are no benefits. The 92.9 percent yes is more significant and it indicates there are benefits of implementing the SCM in the manufacturing sector. The chi-square test statistics gave a chi square value of 25.357, df = 8 and α = 0.05. The table chi square value is (15.507). This shows the calculated value of chi square is greater than the table chi-square value therefore the Null-hypothesis that there are no benefits of implementing SCM in the manufacturing sector was rejected supply chain management is supported by research done by (Goble, 2006). Who gave the following benefits among others; improved forecast, improved planning and scheduling increased asset utilisation.

The generally agreed benefits (Table 5) of implementing supply chain management, by number and of respondents and percentage were: improved customer service 17 (60.7%), reduced. Volume of errors 16 (57.1%), improved planning and scheduling 19 (67.9%), increased asset utilisation 19 (67.9%), reduced manufacturing replacement lead times 20 (71.4%), improved forecast 20(71.4%), reduced costs of logistics 17(60.7%). These results indicate that manufacturing industries have benefited by implementing SCM. Other benefits as gathered from interview include: improve customer service, reduce volume of errors, improve delivery of services, improve organisation internally, improve income due to better monitoring of the markets, and improve utilisation of resources.

There are benefits of implementing supply chain management in the manufacturing sector as shown by the result 26 (92.9%). These benefits include:

1. Improve forecast accuracy
2. Improve planning and scheduling
3. Reduce inventory levels
4. Increase asset utilisation
5. Reduce manufacturing replenishment lead times
6. Reduce costs for logistics
7. Improve customer service
8. Reduce volume of errors
9. Improve delivery of services
10. Improve organisation internally
11. Improve income due to better monitoring of the markets
12. Improve utilisation of resources

8 Recommendation

The manufacturing sector by structuring effectively the components, and putting the levels of SCM in place, while capitalising on the management to mitigate on the challenges of SCM would increase its productivity, satisfy its customers, and increase their profit margin.

The Kenya manufactures association should embrace SCM as a modern management concept in the manufacturing sector.
9 References


Microsoft dynamics (2006).


Singh (1995). Introduction to computer integrated design and management systems. New Delhi, India.

Stevens (1989). Integrating the supply. An international journal of physical distribution and materials management 19 (8), 3-8


Influence of Internal and External Environment Factors on the Strategic Planning Process in Ugandan Organisations

Amooti, Bagire Vincent and Namada, Juliana Mulaa – (Makerere University Business School, Uganda)

1 Abstract

This study sought to establish the influence of internal and external environment factors on the level of strategic planning. The study was premised on the increasing focus on strategic planning in Ugandan organisations. There was however, lack of local empirical studies on whether this trend is driven by internal organisational factors or external forces. Data was obtained from organisations in various sectors that included government institutions, private and family business organisations. The findings confirmed that organisations are involved in a significant level of strategic planning. The internal environment had a weaker coefficient of determination to strategic planning process while it was stronger for external environment factors in our model. The implication of the findings for management is to assess how external factors influence organisations and work to minimise the negative effect. The study opens interest for more analytical researches into the growing field of strategic management in Uganda and other similar poor economies.

Key words: strategy, internal environment, strategic planning, external environment.

2 Background

Ugandan businesses have gone through various turbulent times orchestrated mainly by the dynamic organisational environmental factors. This is attributable to recent policies of liberalisation, relative political peace, increasing competition, growth in various sectors, regional economic markets among others that have triggered vibrancy in the business sector. Many local enterprises have sprung up alongside the entry by multinationals into various ventures. The non-profit sector has also developed rapidly with institutions like schools, medical centres and many NGOs taking the lead. This business landscape has led to improvement in management practices across the country. The focus on various perspectives of strategic management has not been in vain. Strategic planning has become a key activity for many organisations. There is however, inadequate information from empirical studies on the level and magnitude of strategic planning practices being undertaken. The interest of this study was to examine the influence of internal and external environment factors on the level of strategic planning in organisations.
3 Literature Synthesis

Strategy and Strategic Planning

Strategy is a multidimensional concept. The term strategy has been used variously by different people. Some scholars view strategy as a means to an end, others view it as a unifying tool while others still consider it as a link between the firm and its environment. Sometimes it has been confused with goals. According to Reiner and Chaharbaghi (1997), the many definitions are in some ways exclusive but mutually supportive. Mintzberg (1987) on the one hand defined strategy as a plan, ploy, position, perspective and a pattern of a stream of decisions. Porter (1981) on the other hand postulated that strategy is about positioning a business in a given industry through an analytical process. According to Johnson and Scholes (2005) strategy is the direction and scope of an organisation over the long term. It achieves advantage for the organisation through its configuration of resources within a changing environment. A well formulated strategy should meet the needs of markets and fulfil expectations of stakeholders. Strategy thus consists of the means an organisation chooses to move from its present state to its future. Strategy thus consists of the means an organisation chooses to move from its present state to its future position. It can therefore be planned or emergent.

Conversely, strategic planning is an organisational road map that specifies long term strategic options. It is a rational, normative and a deliberate process where ends are specified first followed by means (Armstrong, 1982; Hax and Majluf, 1984; Hunt and Brews, 1999). Strategic decision making is at the heart of both business policy literature and organisational theory literature. Johnson & Scholes (1999) define strategic planning as the decisions that organisations undertake to align with the organisational environment. It is an explicit process where the long term strategic options of the firm are determined as systems of action (Armstrong, 1982). This process mainly involves setting the vision and mission, scanning the environment, formulation, implementation and evaluation of strategies. Ngwana (2002) articulates that organisations must have a commitment of financial and human resources, policies and a reward system if strategic planning is to bring desired results. Jemison (1981) argues that managerial performance which is a measure of success in strategic planning is an efficacy of managerial action. Giovanni and Rivkin (2007) posited that strategy exists in the mind of managers, in their company theory and also embodied in firm routines and rules. Strategic planning is therefore one distinctive process of articulating strategy. However, there are many disturbances that strategic planning faces in light of the environment. These include management system, structure, resource, government and other industrial forces. The strategic planning process involves managers undertaking continuous strategic decision making to align the organisation to its changing environment.

4 Strategy Formulation, Implementation and Evaluation

The unpalatable questions to researchers that have continued in the area of strategy are how to formulate strategic plans that are responsive to the environment, determination of the distinctive internal and external factors that influence this process and how to take full advantage of available resources. Strategic planning as composite process involves continuously making strategic decisions that direct the organisation into its future. This requires making choices that lead to action, implementation of strategy and evaluation. Scott’s (1986) strategy formulation is a moving target, more of an art than a science and a province of top management. Strategy formulation requires testing of the premises on which the organisation is operating. Improved analysis of scenarios stimulates wide ranging strategy formulation possibilities that eventually enhance implementation and evaluation. Real strategists immerse in detail of daily nuggets and top managers are at times in abstract. Dodgson (1999) emphasises patience as a managerial value, noting that strategy formulation takes time.
Implementation on the other hand involves putting strategies and policies into action through programmes, budgets and procedures. Some literature confuses the formulation and implementation; strategic planning is an explicit process of determining long term objectives, procedures for generating alternative strategies and a system for monitoring the results of a plan when implemented (Armstrong, 1982). The separation of strategy formulation and implementation has been one of the pains of understanding strategic management. Learned, Christensen, Andrews and Guth (1965) posit in their classical writing that this distinction was never clear. They note that separation was for pedagogical value only. Subsequent scholars have argued that the two are interdependent and managers must understand the general tasks in both. Another interrelated confusion arose between strategic planning and strategy formulation (Haspelagh, 1981; White, 1981). Execution of strategy should be seen as an organisational process. Effective strategy implementation leads to effective outcomes, leading to capabilities for better strategy formulation ideas (Billi, Berger and Hatcher, 2008).

Strategy evaluation and control is the process of monitoring corporate activities and performance results so that actual performance can be compared with desired performance. Rumelt (1988) develops an argument that takes managers beyond the obvious of checking how business is performing. Higher education added that the final system of strategy evaluation can be explosive. Strategy evaluation has remained elusive to some researchers on strategy. Kaplan and Norton (1992) developed the double loop framework of strategic management in which they underpin the link between strategy formulation and evaluation. A good strategy does not need constant reformulation; most managers would be hurt rather than helped to have the validity of their basic missions called into question on regular basis; they thus must maintain a dual activity view of all the stages in the process.

5 Environmental Factors

Environment refers to the factors, elements and variables that influence business operations both internally and externally. PIMS studies defined environment in terms of controllable, partially controllable and uncontrollable variables (Schoeffler et al, 1974). Lenz (1981) in his response field model defined environment as sources of events and changing trends which create opportunities and threats for individual firms. Environment is considered as a source of opportunities and threats, strengths and weaknesses which when evaluated give an indication of gross movements, trends and future possibilities.

Organisational environment is seen in three dimensions according to Arragon-Correa and Cordon-Pozo (2005), namely hostility, complexity and dynamism. Complexity is where there are large number of relationships and influencing factors requiring high capacity for abstraction on part of management. Dynamism of the environment refers to frequent changes in relevant factors affecting the strategy decisions. Hostility is the difficulty the organisation finds in adapting to its environment. These dimensions are embedded in the simple questions of what changes are taking place, how often are these changes, are they foreseeable or not, are they beneficial or detrimental to the strategy of the organisation.

According to empirical studies the environment selects various organisational forms. In the external environment government is a force to reckon with; it acts as tax levy, regulator, customer, partner and banker. Other factors could be industrial forces including competitors and their actions, new products, and industry trends. Another important element today in the environment is technology. Most successful organisations are in the forefront of technological innovation (Antoniou and Ansoff, 2004). Muralidharan (2004) emphasises that managers should essentially forecast future technological turbulence, diagnose organisation's present aggressiveness, determine future technology gaps and design action for the future innovations and adaptations. To succeed today general managers must have the mindset and skills to interpret the direction the environment is taking as this will affect the financial capability of the organisation directly or indirectly. This will in essence influence the level and content of strategic plans.
The internal environment includes variables like size of the organisation, structure, financial capability, human resources and facilities. In the external environment are factors like government requirements, legal framework, and industrial forces like competition, industry structure and technology. To succeed today managers must have the mind set and skills to interpret the direction the environment is taking and set their strategies to capture opportunities and minimise unfolding threats.

Organisations are open systems, which helps to explore the relationship between environment and strategy decisions. In studying the relationship between the environment and strategy process, Lenz (1981) raises a serious concern whether characteristics by which environment can be viewed to explain strategic management are real or an imagination figment of strategists. For example some scholars say that organisational environment are everything out there; this calls to a flaw the belief when there is no solid grounded theory to allow measurement of the environment and its characteristics. The organisational system, environment, industrial topologies are in the quintal of competitive strategic fit, meaning that their influence on strategy cannot be negated. This analysis was anchored in the structure-conduct-performance analysis paradigm in the impact of the environment (Wenerfelt, 1984; Olivier et al, 2008). To succeed today, general managers must have the mind set and skills to interpret the direction the environment is taking lest their strategy capability will lay in vain.

The debate of how the internal and external factors interact in subtle ways to predict firm strategic drifts is not concluded.

In light of this literature synthesis and the Ugandan business landscape, the following hypotheses were formulated to guide this study.

H1. There is no significant relationship between the internal organisational environmental factors namely size, structure and facilities and strategic planning process.

H2. There is no significant relationship between the external environment factors, namely industrial forces, legal requirements and technology and strategic planning process.

H3. There is no significant joint relationship between the internal environmental factors and external environmental factors and strategic planning process.

6 Methodology

This study adopted an analytical cross sectional design. This study relied on a population of students undertaking masters programme and working in various organisations. They had just offered the strategic management course at Makerere University Business School. The use of students in surveys has been found enriching in previous studies with successful outcomes (Wong, et al, 2009; Hill, et al, 2000). Masters students being employed in different organisations provided us a rich variety of responses from organisations in the public and private sector. It was a favoured population in terms of understanding the subject matter as well as access in administering the instrument. From a total of 300 students, a sample of 169 was taken basing on tables developed by Bartlett, Kotrlik, and Higgins (2001). A total of 78 questionnaires were received back giving a response rate of 46.1 percent. However after initial sorting and checking for completeness and missing cases, only 60 questionnaires were used in the analysis giving 35.5 percent of the sample. Internal environment factors namely size, facilities and structure were operationalised in number of employees, facilities like computers available and decision making process respectively. Measures for external environment were industrial forces (competition, products, processes, and market), legal requirements and technology (perceptions on technological adaptation). Strategic planning process was operationalised through items on strategy formulation, implementation and evaluation.
7 Results

Respondent Characteristics

The highest response came from students working in Government civil service at 43.3 percent, followed by those in corporations which nearly tied with private firms with 28.3 percent and 26.7 percent of the respondents, respectively. There was only 1 employed in family business. In terms of size by number of employees, 70 percent of the organisations had numbers above 100. The respondents who had worked for 2 – 5 years were the majority at 78.3 percent as against 15 percent who had worked in those organisations for more than 5 years. Meanwhile in all the 60 cases, 10 percent were in top management positions, 38.3 percent in supervisory roles while 50 percent were at operational level of management. This distribution was good to provide insights of perceptions from different levels of the organisation. The results therefore reflect non biased responses which were not skewed to any level of management, sector and length of service among the respondents.

The Variables in Strategic Planning

This objective was achieved using descriptive statistics. The results reflected views on several items seeking to know if organisations had strategic plans, how mission and vision were derived, strategy implementation and control systems, and evaluation. Organisations in 85 percent of the respondents had a vision and mission statements; in 73 percent strategic planning was done annually while in 67 percent strategic planning was done at departmental level. Views on the level of each of the components of the strategic planning processes were interesting. For instance in 52 percent cases top management developed the vision and mission, 23 percent indicated the contrary view while 25 percent were uncertain of how the vision and mission came to be. In only 7 percent was it indicated that strategic plans were developed by external consultants. Regarding how known across the organisation the vision and mission are, the affirmative was in 50 percent of the responses while 50 percent indicated the contrary. In 55 percent of the cases, strategic plans were implemented at the departmental level. There was consistence in the evaluation of strategies; in only 8 percent cases was it done by external consultants agreeing with the earlier view on formulation of the plans. But in 58 percent of the organisations there was a policy on evaluation of strategic plans, consistent with 70 percent periodical reviews earlier analysed, 62 percent evaluation was done by top management and extreme 13 percent where strategic plans had never been reviewed.

This analysis confirmed to us that indeed organisations in Uganda were involved in some level of strategic planning though the magnitude and level of involvement differed.

Correlations among the Model Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal environmental</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>factors</td>
<td>.508**</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>External environmental</td>
<td>Pearson Correlation</td>
<td>.252</td>
<td>.509**</td>
</tr>
<tr>
<td>factors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

We tested for simple linear correlations of the factors before proceeding to test the hypotheses. The results indicated that the variables were correlated, with the highest coefficient being between the external environment factors and strategic planning at .509 at level of significance 0.01. On the contrary internal environmental factors had a low coefficient of .252 with strategic planning; the two dimensions of the environment were moderately correlated.
We also checked the coefficients of the environmental factors to each of the three measures of strategic planning and this is indicated in the table below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Environmental Factors</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>External Environmental Factors</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Strategy Formulation</td>
<td>.121</td>
<td>.520*</td>
</tr>
<tr>
<td>Strategy Implementation</td>
<td>.301*</td>
<td>.611**</td>
</tr>
<tr>
<td>Strategy Evaluation</td>
<td>.347**</td>
<td>.687**</td>
</tr>
</tbody>
</table>

The values in this table agreed with earlier studies that internal environment factors are relatively less correlated with strategic planning process than external factors.

Testing of H1 - The relationship between internal environment factors and strategic planning

Having confirmed that there was correlation between internal factors namely size, facilities and structure with strategic planning process, we tested for H1 to ascertain whether the relationship was significant or not.

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Internal environmental factors, namely size, structure, facilities.</td>
</tr>
</tbody>
</table>

The results in the model summary showed that internal environment factors showed an $R^2$ of .072, meaning that they account for only 7.2 percent. The model had no fit.

We then used the p-value to test the hypothesis.

**Significance level: 0.05% (95%)**

Decision Rule: Reject the H if the p-value is less than 0.05.

P value is 0.051, more than 0.05.

We therefore accepted H2 and concluded that there is no significant relationship between internal organisational environment factors namely size, structure and facilities and the strategic planning process.

Testing H2 - The Relationship between External Factors and Strategic Planning

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (Constant), External environmental factors namely industrial forces, legal, technology</td>
</tr>
</tbody>
</table>

The results from the model give the $R^2$ for external environment factors as .523. This means that these factors accounted for 52.3 percent of the variations in the strategic planning process. This means that 52.3 percent of the variation in strategic planning process is explained by industrial forces, legal factors and changes in technology leaving 47.7 percent to factors unexplained and the error term. The model had a moderately strong fit.
Using the P-value we tested for H3, where was \(p=0.000\), which is less than our level of significance of .05. We thus rejected H3, meaning that there was a significant influence of the external environment factors, namely industrial forces, legal requirements and technology on the strategic planning process of the organisations in Uganda.

Testing for H3- Joint relationship between internal and external environmental factors and strategic planning

The model summary for combined environmental factors resulted into the coefficient of determination of \(R^2 = 0.530\), just a little higher than that of external factors and greatly more than internal factors. This meant that jointly, the environmental factors in our model accounted for 53% variations in the strategic planning process. This is a moderately strong model.

In the coefficients of the model, internal factors have beta of -.097 while it is positive and high for external factors at .773. The p-value of the joint influence was .000, less than .05 level of significance. We therefore rejected H3, and posited the alternative that there is a significant joint influence of internal and external environment factors on the strategic planning process in Ugandan organisations.

8 Discussion and Management Implications

Our results confirmed that Ugandan organisations are involved in strategic planning. Key were the findings on strategy formulation, implementation and evaluation. Descriptive results indicated that though the strategic planning is undertaken, further analysis of the responses showed that it is not system-wide and not well articulated. Our findings agreed with the literature that the vision and mission are articulated by top management but should be known by all staff and integrated in the work system of the organisation (Hambrick and Manson, 1984). Our results indicated low knowledge of the mission and vision among staff and less integration in work processes. The confirmation that external consultants are not used in developing strategic plans nor involved in evaluation was revealing. The inference is that the strategic planning is an internal management
activity and handled within the structures of the organisation. Organisations should build internal managerial capacity to undertake strategic planning and not rely on external skills.

From the study strategy formulation is a premise of top management but implementation is emphasised in the lower structures. Strategy evaluation is undertaken at different levels. Strategic planning is influenced by both internal and external factors. Our finding that internal factors are not significant while it is the opposite for external environment factors raises pertinent questions for managers. The external environment is more dynamic and having a greater influence on the variations in strategic planning calls for acumen in business management. This result is important for managers to identify key internal controls that enable them manoeuvre with external pressure.

For researchers the results need further scrutiny. This study focused on internal factors namely, size, facilities and structure but there are more factors that could be analysed to get a broader picture of the internal environment. The external factors studied were industrial forces, legal requirements and technology. As Lenz (1981) posits, the debate on the influence of the environment is not concluded. It is one key factor in our understanding of the strategic management field, and one that has made the field to suffer paradigm shifts due to its dynamic nature. The results were revealing and posited a dichotomy that managers need to assess critically. The very weak predictive power of our selected internal factors calls for further scrutiny. The joint influence of internal and external factors being moderately high gives a better decision structure that can enable managers to handle interfaces between the two sets of factors without extreme effect on the desired outcomes.

This study has revealed that in Uganda managers must give attention to the external environment in the formulation, implementation and evaluation of strategies more than the internal factors that we focused on. Internal environment factors are under managerial control as against external factors that are uncontrollable. The findings confirm anecdotal evidences that the rapidly changing factors like competition, market forces, technology, legal requirements have greatly influenced the business landscape in Uganda. While there is growing interest in strategic planning in organisations as a managerial tool to counter dynamism in the environment, assessing the external factors must be robust to inform their decision processes.

Strategic planning is an integrated task that borrows from several management functions. Managers should be aware of these interactions, some factors of which have not been revealed by our model. There are financial capability, human resource issues and managerial skills which could have a significant influence. Even their effect, as we have identified in our model, could differ along the various stages in strategic planning. This is greatly revealing and a challenge; managers must build a framework for strategic planning and not rely on few factors for its success.

We propose an extensive analytical study on the strategic planning process in various industries, as some factors discussed in this paper are contextual in general but industry specific. This will provide a grounded understanding of strategic management field in the country and the East African sub-region that shares similar economic trends.

The study was limited by our sampling technique and the units of inquiry; some bias may have occurred by using managers in a student setting, who had just covered the subject area and though working in various firms, the responses could have been different if the instrument was administered to them within their work system. The factors selected in either environment setting could have limited the results also. However, within these limits this study provides an empirical starting point to examining the strategic planning function and environment factors in Ugandan organisations.

9 References


Management of Records for Competitive Advantage in Kenya’s Banking Sector

Maseh, Elsebah and Mzera, Nelly – (Moi University, Eldoret, Kenya)

1 Abstract

This paper provides a report of a study undertaken between September 2010 and November 2010. The aim of the study was to assess the current records management status in Kenyan banking sector with a view of enhancing records management practices for competitive advantage. The objectives of the study were to: find out the type and nature of records generated by the sector; establish the uses of these records; establish the current status of records management in the sector; determine the application and effects of ICTs on records management; and find out records management challenges faced by the sector and suggest possible solutions.

The study was informed by the Records Continuum Model proposed by Upward (1980). The study was a case study research with a qualitative approach whose population comprised of bank managers, administrators & records managers and IT specialists from major banks in Kenya. Four brands of banks were purposively sampled, by picking two branches from each brand. Interviews and review of related literature was used to collect data. Data analysis was by thematic categorization based on objectives. The findings showed that though records had been recognized by all the banks studied as being a strategic resource, records management was still wanting in all the banks. The study therefore provided recommendations to strengthen records management in this sector.

Key words: Archives, Competitive Advantage, Records, and Records Management

2 Introduction

A record is defined by the ISO 15489-1:2001 standard as information created, received and maintained as evidence by an organisation or person in pursuance of legal obligations or in the transaction of business. This definition is shared by Shepherd and Yeo, (2006) who also note that a record can be held in any media - on paper, digitally, on microfilm, etc.

Records management refers to the general administrative management concerned with achieving economy and efficiency in the creation, maintenance, use and disposal of the records of an organisation throughout their entire life cycle and in making the information they contain available in support of the business activities and functions of an organisation (IRMT et al, 2001). According to ISO 15489-1:2001, records management (RM) is the activity responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposal of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

Wamukoya 2007, identifies the objectives of records management as being to: set policies and procedures; assign responsibilities for RM at various levels within the organisation; set best practice standards; process and maintain records in safe and secure storage; implement access policies; implement a records retention and disposal policy; integrate records management into business systems and processes; assign, implement and administer specialised systems for managing records; and provide a range of services relating to the management and use of records.
Sampson (2003) argues that every organisation generates records. They call for properly managed records to support decision making, improve productivity and efficiency and preserve corporate memory among other reasons. Archives and records collections help business communities maximise and use this business information asset effectively to improve performance, explore new markets and above all to succeed in today’s competitive global markets. In addition, archives help companies use records to exploit their uniqueness and gain an edge over other competitors.

The banking sector is a typical example of institutions that rely on records and archives to do their business. It is however clear that for the banking sector to reap the benefits of such records, effective and efficient management should be guaranteed.

According to Miller (2009), adequate records management affords organisations a number of benefits. It enables organisations to:
1. Know what records they have, and locate them easily
2. Increase efficiency and effectiveness
3. Make savings in administration costs, both in staff time and storage
4. Support decision making
5. Be accountable
6. Achieve business objectives and target
7. Provide continuity in the event of a disaster
8. Protect the interests of employees, clients and stakeholders

3 Theoretical Framework

This study was informed by the Records Continuum Model (RCM) which has gained acceptance worldwide as the best practice model for managing records and archives, including electronic records as pointed out by Kemoni (2008). Sletten (1997) defines the records continuum model as a consistent and coherent regime for management processes, from the time of records creation to their preservation and use as archives.

The structural principles of RCM as presented by Upward (1998), relate to the concept of “records” as inclusive of records of continuing value and stresses their uses for transactional, evidential and memory purpose and unifies approaches to archiving and recordkeeping. Other structural principles focus on records as logical rather physical entities regardless of whether they are in paper or electronic form. This aspect is particularly relevant for records in the banking sector which are increasing produced in both paper and electronic forms.

The RCM also stipulates that an archival document can be retrieved and returned to its current status just as a newly created record can be archived immediately after its use. This is more practical in the banking sector, where an archival record may be returned back to current use, for example when a closed bank account is reactivated or when there is a re-emergence of an old case for auditing or legal purposes. Some of these cases can relate to transactions initiated over ten years prior.

According to McKemmish (1998), the RCM provided a way of conceptualising record keeping in organisations. She opined that the model had the following features:
1. Identified key evidential, record keeping and contextual features of the continuum and placed them in relationship to each other.
2. Represented the multidimensional nature of the record keeping function.
3. Mapped the evidential, record keeping and contextual features of the continuum against the dimensions of the record keeping function.
4. Was itself placed in a broader socio-legal and technological environment.
Aim of the Study

The aim of the study was to assess the current records management status in Kenyan banking sector with a view of enhancing records management practices for competitive advantage.

Objectives of the Study

The study was informed by the following objectives:

1. To find out the type and nature of records generated by the sector.
2. To establish the uses of these records.
3. To establish the current status of records management in the sector.
4. To determine the application and effects of Information and Communication Technologies (ICT) on records management.
5. To suggest recommendations to enhance records management for competitive advantage in the sector.

Methodology

The study was a case study research with a qualitative approach. Four brands of banks were purposively sampled, and two branches picked from each brand. The population of the study comprised of bank managers, administrators and records managers, and IT specialists from the selected banks giving a total population of twenty four (24). The entire population was then targeted for the study (census). Interviews and review of related literature was used to collect data.

Data analysis was by thematic categorisation based on objectives.

4 Findings of the Study

As was indicated above, the study targeted all the 24 respondents. However, 18 of these were successfully interviewed giving an interview responds rate 75 percent. Basing on the objectives, the following were the key findings of the study.

Type and Nature of Records Generated

The study sought to find out the nature and type of records generated at the banking sector. The study established that core activities in the banking sector are financial in nature and include local currency deposits, foreign currency deposits, issuance of cheques, safe custody, credit facilities (loans, overdrafts, credit cards, short and medium term loans, local bills discounts), guarantees (bid bonds, performance bonds, commercial guarantees), international trade finance, and mortgage financing to name but a few.

These activities generate records that support the transaction and act as evidence of the transaction. These records are for example, transaction vouchers, account statements, customer files, cheques, daily ledger books, investment reports, loan performance reports, fraud reports, fund transfer reports, forex statements, circulars and daily correspondence relating to customers.

Other non financial activities include human resource management, community support through project sponsorship, audits among others. These activities further generates more records which include staff files, audit reports, annual reports from community projects supported to name but a few.

The researchers asked the respondents the formats that these records are in and fifteen (15) out of the eighteen (18) respondents indicated that the records are both in paper and electronic formats. However three (3) respondents indicated that the records are basically in the paper formats though plans are underway to computerise the records.

From the above it can be deduced that the banking sector generates large amounts of records on daily basis since each single transaction generates a record either in paper or electronic or both.
The implication for this is that if these records are to be useful, then there is need for a sound records management programme.

**Use of Records Generated**

The researchers sought to find out whether all the records generated were to use of the banks studied. All the respondents noted that the records were very useful and that banks would not operate without these records. Some of the uses that were mentioned are as follows:

1. The records act as evidence of a transaction between the bank and its clients.
2. Records are very useful in cases of litigation as will be the only sure proof of what transpired between the bank and the client.
3. Records are crucial in informed decision making.
4. Useful for strategic planning.
5. Records are useful as a tool to foster growth and product development.
6. Records are useful in maintaining history and acts as the memory for the institution.
7. From the cited uses of the records generated, the importance of the records cannot be overemphasised and therefore needs to be well managed.

**Current Status of Records Management in the Banking Sector**

The study revealed glaring inadequacies in records management in all the banks studied. To begin with, there was no comprehensive and professionally drawn Records Management Programme or Policy. However, one administrator from one of the banks indicated that they had a records management manual which the researchers felt was not comprehensive enough. The implication for this was lack of a standard way of managing records in case of staff changes.

In addition to this, all the banks did not have qualified records managers during the time of the study. It is worth noting that in two of the banks, qualified records managers had been hired but were on other assignments. However, during the time of the study one of the banks had placed an advertisement on the local dailies for a qualified records manager to establish a fully fledged records department and to head the department. This meant that there was a general lack of qualified staff in the banking sector.

Furthermore, funds required for the management of the records was a problem in all the banks. Banks being profit making organisations are always looking for ways to reduce expenditure while maximising on profits. The study found out that none of the banks studied had allocated funds for records management function.

Moreover adequate space and the right equipment required for proper management of records was lacking. As a result of this, records especially the manual records were found lying on top of desks and tables of officers working in back offices. Retrieval of such records was reported to be a difficult task since there was no finding aids in place and this could possibly lead to loss and / or misplacement of such records.

Overall, this suggests that records management in the banking sector is inadequate and requires strengthening in order to fully benefit from the records.

**Application and Effects of ICT on Records Management**

The study revealed that there is an intense ICT adoption for service delivery in the banking sector. This was evident by such services as e-banking and increased automated customer driven products.

As a result of this, there was a corresponding enormous generation of records both in paper and electronic formats. This was attributed to the ease with which records can be created in an ICT enabled environment. This state of affairs requires a well integrated records management programme. However, as was discussed earlier, the status of records management in the banks
studied was wanting at the time of the study. The implication for this is that even though ICT has revolutionised business processes in institutions, it has not done much for records management in the banking sector. The sector therefore needs to give much thought to records management and streamline its systems both for paper and electronic records.

**Challenges faced by the Banks in the Management of Records**

The study sought to find out records management related challenges that the banks face. The respondents identified the following:

1. **Mass production of records** – the adoption and use of ICTs in the banking sector as was discussed earlier as lead to generation of a lot of records. These records are a challenge to the sector in the sense that managing the records with the limited resources available is almost impossible. In the long run the usability of such records cannot be ascertained.

2. **Lack of sufficient legal framework** – in Kenya today, the legal framework surrounding the management of electronic records in all sectors is not well defined. It is for example not clear whether electronic records can be accepted in a court of law in case of litigation. As a result of this, institutions are forced to maintain records in both paper and electronic format which doubles up as a challenge especially as far as space is concerned.

3. **Lack of RM policies and procedures** – records management has not been given its rightful place in the banking sector. As a result of this, policies and procedures have not been put in place to guide the management of records. This means that records are haphazardly managed and therefore poor state of records in the sector.

4. **Lack of efficient RM practices and systems** – the sector do not have proper records management practices and systems and this has largely contributed to the poor state of records in the sector.

5. **Lack of adequate resources** – there is a general inadequacy of records management resources in the banking sector. This includes lack of trained records management staff, lack of adequate funds, and lack of adequate equipment to name but a few. As a result of this records are not well managed in the sector.

6. **Technological obsolescence** – generally, technology is so dynamic to an extent that a given technology becomes obsolete even before it is fully utilized;

7. **Preservation of e-records** – preserving electronic records is still a challenge because of the fragile nature of such records. This coupled with changing technologies and poor legal framework makes preservation of such records difficult.

8. **Lack of coordination between the RM and IT staff** – in instances where there is some semblance of records management units, there is often no coordination between staff here and IT staff. In most cases IT staff develops records management systems without consulting the records management staff. This leads to systems that do not serve records management functions well.

**Possible Solutions**

The respondents suggested the following solutions to the identified challenges:

1. Proper management of records even before the records are created to ensure that only records that are required are created and managed.

2. Records management policies needs to be put in place.

3. Investing in records management and realization that records is a critical resource requiring skilled staff as well as proper tools and equipment.

4. Keeping abreast with technological advances and possibly upgrading software where applicable.

5. Coordination between Information Technology department and Records management department needs to be established.
5 Conclusion

Records are an important resource in the banking sector and their role in edging out competitive advantage cannot be overemphasised.

The study revealed that the sector appreciates the role that records play in conducting their core business. However, little effort had been put to effectively manage this strategic resource for its competitive advantage. This was evident by the fact that there was no comprehensive and professional records management programme or policy in place. There was also a complete lack of qualified records managers to undertake records management function and resources required for this were inadequate. The study also unearthed several RM challenges faced by the banking sector and it is believed that if the recommendations given could be implemented then sector would fully benefit from this resource.

6 Recommendation for the Study

The study made the following recommendations:

First and foremost, the banks need to employ qualified records managers to run records management functions.

Records management should be treated as part of the core activities in the sector. Consequently, records management departments need to be established in all the banks and records managers appointed as heads who should report to the bank managers.

All the prerequisite requirements should also be provided. This includes adequate space, proper tools and equipment.

The appointed records managers should then come up with a comprehensive and professional records management programme which should encompass the efficient management of all records created by the bank irrespective of the format from the time they are created through to disposition and/or archiving.

The study also recommends training of all staff in the banking sector on basic records management principles since at some point each of them handles the records.

7 References


A Survey of Orientation Practices in Commercial Banks in Kenya

Wambua, Philip Peter – (Kenyatta University, Kenya)

1 Abstract

The commercial banks in Kenya have not been spared in the environmental changes. Through the process of orientation, commercial banks seek to reposition themselves in order to create new competencies and capacities to exploit and deal with new situations. In late 1990s commercial banks experienced several challenges resulting to mergers of some banks and closure of several branches as a way of cutting down on costs due to high costs of living resulting to customers not saving as per the expectations. During this time some banks were also placed under statutory management to help them recover for purposes of protecting the common man. As a result of this trend the banks started rebranding their products and repositioning themselves to tap the much needed business. This saw the emergence and introduction of ATMs in most banks. Introduction of competitiveness through IT thus required high skills and great experience on the part of the employees. Due to the struggle by commercial banks to stay afloat, the study undertook to analyse the orientation practices in commercial banks in Kenya.

2 Introduction

This chapter addresses the background of the study, commercial banking sector in Kenya, statement of the problem, objectives of the study, research questions and importance of the study.

Background of the Study

Kirkpatrick (1983) defines orientation as the act of acquainting someone or oneself with the present position relative to known points or with the details of the situation.

Cowie (1989) notes that to orientate somebody is to direct the interests of somebody to something or make oneself familiar with a new situation.

Orientation process is similar to what sociologists call socialisation (Ivamevich, 1983). The style an organisation uses to orient new employees is affected by the organisation and its climate. The diagnostic manager adapts the orientation programme to the individual and gives a different emphasis for a person with 20 years experience in the industry than for a new employee who is just out of high school and from a disadvantaged background. The nature of the employee and the task are critical factors with managers being given more detailed orientation programmes than other employees.

Orientation programme focuses on introducing the new employees to the task; the work group and the superior – leader. During orientation the work policies of the organisation, the job conditions and the people the employee will work with to get the job done are discussed (Ivamevich, 1983).

According to Schein (1968) organisational socialisation is the process of “learning the ropes” the process of being indoctrinated and trained, the process of being taught what is important in an organisation or some subunit thereof. This process occurs first in school. It occurs again and perhaps most dramatically when the employee enters an organisation on his first job. It occurs again when higher education switches within the organisation from one department to another or from
one rank level to another. It occurs all over again if higher education leaves one organisation and enters another. And it occurs again when higher education goes back to school and again when higher education returns to the organisation after school. The process is so ubiquitous and we go through it so often during our total career, that it is all through it so often during our total career, that it is all too easy to overlook it. Yet it is a process which can make or break a career and which can make or break organisational systems of manpower planning. The speed and effectiveness of socialization determine employee loyalty, commitment, productivity and turnover. The basic stability and effectiveness of organisations therefore depends upon their ability to socialize new members.

Part-time employees are likely to receive much shorter and less elaborate orientation, it is probable that orientation will be done by human resource management programmes specialists who will get them on the payroll, explain pay and hours and turn them over to a supervisor, who will likely explain to her or his expectation for work, introduce new employees around, show them the job and encourage them to ask for help (Ivamevich, 1983).

Holland and Curtis (1972) notes that for one to teach a new employee a job higher education must decide what the new employee must be taught in order to do the job efficiently, safely, economically and intelligently, have the right tools, equipment, supplies, and material ready and have the workplace properly arranged, just as the worker will be expected to keep it. Then one has to instruct the learner by four basic steps, of preparation of the learner by putting the learner at ease, finding out what is already known about the job and getting the learner interested and desirous of learning the job. Second step calls for presentation of the operations and knowledge by telling, showing, illustrating and questioning in order to put over the new knowledge and operations, the instructing slowly, clearly, completely and patiently one point at a time as one checks, questions and repeats to make sure the learner really knows. The third step involves performance try out as one tests by having the learner perform the job, asking questions beginning with why, how, when or where, observing performance, correct errors and repeat instructions if necessary and continuing until one knows the learner knows. Step four is concerned with follow-up and calls for checking frequently to be sure instructions are being followed and taper off extra supervision until learner is qualified to work with normal supervision. It is noted that if the learner has not learned the teacher has not taught.

Finnigan (1983) divides orientation into three parts: General Orientation to the firm which includes the firms’ handbook, description of the business, how it is organised, who are its key people, traditional practices and maintenance of company standards. Department Orientation which is the responsibility of line managers who bring their section heads/supervisors into it. Job Orientation where the manager and the competent on the job instructor will be sensitive to nervousness and noisy surroundings.

The concept of socialisation is most useful because it focuses clearly on the interaction between a stable social system and the new members who enter it. The concept refers to the process by which a new member learns the value system, the norms, and the required behaviour patterns of the society, organisation or group which higher education is entering. Such values, norms, and behaviour patterns involve: The basic goals of the organisation, the preferred means by which these goals should be attained, the basic responsibilities of the member in the role which is being granted to him by the organisation, the behaviour patterns which are required for effective performance in the role, a set of rules or principles which pertain to the maintenance of identity and integrity of the organisation. The new member must learn not to drive Chevrolets if higher education is working for Ford, not to criticize the organisation in public, not to wear the wrong kind of clothes or be seen in the wrong kinds of places (Schein,1968).

The most beautiful as well as the ugliest inclinations of man are not part of a fixed and biologically given human nature, but result from the social process which creates man (Fromm,1991). This shows that individuals adapt themselves to external circumstances and hence create something new in their nature.
If the novice has correctly anticipated the norms of the organisation higher education is joining, the socialisation process merely involves a reaffirmation of these norms through various communication channels, the personal example of key people in the organisation, and direct instructions from supervisors, trainers, and informal coaches. If however the novice comes to the organisation with values and behaviour patterns which are varying degrees out of line with those expected by the organisation, then the socialisation process first involves a destructive or unfreezing phase. This phase serves the function of detaching the person from his former values of proving to him that his present self is worthless from the point of view of the organisation and that higher education must redefine himself in terms of the new roles which higher education is to be granted (Schein, 1968).

The specific environmental forces involve factors unique to a given organisation and may include industry competitors, suppliers, particular resources, trade unions and government regulations that directly affect the operations of the organisation. The general environmental forces involve those factors that influence all organisations in a given society which may include economic conditions, technology, market, trade unions, government and value systems (Nzuve, 1988).

In an organism greater complexity and differentiation among its parts lead to changes in the structure of the whole and in the way in which the whole functions (Reece and Overton, 1970). The disintegration of the old phase of functioning creates the conditions for the discontinuous “step-jump” to a new phase. This succeeding phase incorporates yet transforms the repertoire of principles, values among others, of earlier phases and adds to them. The new phase is not entirely – it is a transformation. Each succeeding phase is more complex integrating what has gone before (Pedler, 1988).

Buchanan (1989) in his work on Job design stresses the debilitating effects of Taylorist Style of work regimes and the stultifying impact on the physical, emotional and psychological well being of individuals; People have higher levels of ability and higher expectations of working life; they have a physiological need for sensory stimulating, for changes in the patterns of information that feed to the senses to sustain arousal.

Cross (1990) in his uncritical and prescriptive “advice” to management suggest that because of an inherent need for creativity and self-fulfils, jobs need to be designed which test the initiative and ability of individuals so that they seek to provide meaningful job, which built upon and stretch people's abilities so that they can realise their potential.

Finnigan (1983) observes that the manager who is anxious to get value for money out of his recruiting activities will have to be concerned not only with getting the right people but retaining them. Managers should give all possible attention to the first few days of new employees’ life to help them settle in and begin to feel that they belong. This must be planned and handled appropriately by considering the basic differences between the old brigade and the new. The pressure on a manager's time is great but there is, undoubtedly much scope for this helpful activity without it being the disruptive nuisance which may claim it to be. The daily affairs of the organisation have to go on. Managers need to give thought to some positive action to the problem of selling their jobs, their firms and themselves to highly educated and critical young people. Introduction to working life need not wait for the first few days but could commence before they actually start work.

Whilst it is acceptable for managers to delegate, if they can find time to do it personally will be starting their relationship straight away and will not give the impression of remote people. The process of feeling welcome, of belonging and of being cared about starts right here and the individual begins to identify with the company. Orientation is an important aspect of the supervisor's job and should be included in the training programme for them. The success of orientating people to jobs begins with the specification used for recruiting purposes. The person selected must match this requirement as closely as possible since the course undertaken for orienting someone will never satisfactorily introduce the wrong person to the wrong job. Basic instruction and the procedure have earned the title of “sitting by Nellie”.

The most expert exponent of scientific section methods and highly organised recruiting procedures admit that there must be an element of chance in the selection of new employees as indicated by the statistics of people learning within the first year of employment, the other factor to be included in the orientation course in the opportunity to weed out misfits who have slipped through the recruiting and selection procedures. Getting the right person in the right job has no hope of success without a proper introduction to it under qualified supervision and efficient control (Finnigan, 1983).

Dessler (1994) concurs that orientation is one component of the employer’s new-employee socialization process, an ongoing process that involves instilling in all employees the prevailing attitudes, standards, values and patterns of behaviour that are expected by the organisation and its departments. Initial orientation if handled correctly can help reduce the new employee’s first-day jitters and reality shock. Orientation programmes range from brief introduction to lengthy formal programmes where the employee is given a handbook covering matters like working hours, performance reviews, getting on the payroll, vacations and tour of the facilities. Other information would include employee benefits, personnel policies, the employees daily routine, company organisation and operations, and safety measures and regulations. Orientation thus begins the process of synthesising the employees commitments to the firm and its values and goals.

Orientation is a central organisation principle that underlies people’s attempts to make sense of their lives and is primarily developed from fieldwork carried out by sociologists rather than from laboratory work conducted by psychologists (Amstong, 1999). Orientation is a persisting tendency to seek certain goals and rewards from work, which exists independently of the nature of the work and the work content.

**Commercial Banking Sector in Kenya**

The decision of the three ex-British East African countries in 1965 to dissolve the Monetary Union under the East African Currency Board had its bearing on structure and function of their commercial banking system. Until then the banking systems of the three countries had close connections among themselves and were largely dependent on Kenyan branches of British Banks (Cassa, 1971).

The Central Bank of Kenya was established on 23rd May, 1966. Kenya’s Banking system consists of commercial banks and post office savings bank among others.

1. Banking activities in Kenya are governed by a Banking act which came into force in 3rd June 1969 replacing an earlier date by 1956 (Cassa, 1971).
2. Banking is subject to government licensing and a minimum capital requirement, liquid/deposits ratio, liquid assets, balances held at the central bank, treasury bills and other negotiable foreign and domestic assets.

The central bank has powers to vary the proportion and composition of compulsory reserves and commercial banks are obliged to submit periodic reports to the central bank on their liquidity position.

After gaining independence in 1963 the Government took steps to expand saving facilities by entering in the fields of commercial banking, housing finance, insurance and the provision of development finance for all major sections of the economy (Cassa, 1973).

**Statement of the Problem**

The first few days on the job are crucial in helping the employee get started in the right direction with a positive attitude and feeling. When a person gets a job higher education or she wants to do a good job, keep the job and keep ahead with the organisation (Ivamevich et al, 1983) and hopes the organisation’s management would explain how to do the job and what is expected to get done in a good day’s work. Finnigan (1983) concurs that the problem is not helped by those young people who get a chip on the shoulder when they realise that the work they thought would be easy is not.
Ivamevich (1983) noted that, the new comer doesn’t usually know what to say or who to say it to or even where higher education or she is supposed to be. It takes time to learn the ropes and a good orientation programme can help make this time be a positive experience.

Schein (1968) observes that organisations can make genuine effort to become aware of and understand their own organisational socialisation practices, there is fear that very few higher level executives know what is going on at the bottom of their organisations where all the high priced talent they call for is actually employed. The basic functions of a trade union which would make the unionisable employees and the top management come to a consensus and hence lead to awareness of what the unionisable employees are participating in by way of collective bargaining, handling disputes and grievances, Organising and carrying out socio-economic activities through workers’ education courses.

Greater awareness and understanding of these practices should make possible more rational choices as to which practices to encourage and which to de-emphasise with the focus being on pivotal values only, not on peripheral or irrelevant ones. Organisations must come to appreciate the delicate problems which exist both for the new employee and his first boss in the early years of the career when socialisation pressures are at the maximum. If more organisations appreciated the nature of this dilemma they would recognise the necessity of giving more training to the men and women who will be the first bosses of the employee (Schein, 1968).

Unionisable employees in commercial banks rely on management for jobs and on the Government for protection of workers’ rights. Management depends on the union to honour its contract obligations. Government needs both union and management to provide productive organisation that meet society’s needs (Mungumi, 2002).

Orientation has not been studied a great deal (ASPNA-BNA Survey No.32) and that has prompted the researcher to carry out this study. Beardwell (1997) in his study on organisations noted that what an organisation needs of its members is development since this is the process whereby a person through learning and maturation becomes increasingly complex, more elaborate and differentiated and thereby better able to adapt to the changing environment. Higher education did not dwell on orientation particularly and thus there is a gap in knowledge.

**Objectives of the Study**

1. To establish the orientation practices for employees in commercial banks.
2. To determine the extent to which employees are satisfied with the orientation practices in commercial banks.

**Research Questions**

1. What are the orientation practices in commercial banks in Kenya?
2. To what extend are employees satisfied with the orientation practices in commercial banks in Kenya?

**Importance of the Study**

1. To the banking industry: Sensitisation
2. To the managers: New ideas and skills
3. To the employees: More effectiveness in orientation practices
4. More insight into the orientation programmes
5. To academicians and researchers: A basis for further research


3 Literature Review

Introduction

Orientation should begin with the most relevant and immediate kinds of information and then proceed to more general policies of the organisation. The most significant part of orientation is the human side, giving new employees knowledge of what supervisors and co-workers are like, telling them how long it should take to reach standard of effective work and encouraging them to seek help and advice when needed. New employees should be “sponsored” or directed by an experienced worker or supervisor in the immediate environment who can respond to questions and keep in close touch during the early orientation period. New employees should be gradually introduced to the people with whom they will work, rather than given a superficial introduction to all of them on the first day. New employees should be allowed sufficient time to get their feet on the ground before demands on them are increased (Ivamevich, 1983).

New employees expect that the basic requirements for job satisfaction such as comparatively higher pay, an equitable payment system, real opportunities for promotion, considerable and participative management, a reasonable degree of social interaction at work, interesting and varied tasks and a high degree of control over work pace and work methods (Armstrong, 1999). Collision and Knights (1986), in regard to female employees in life insurance industry noted that in the context of highly subordinated poorly paid positions which provide few opportunities to advance indifference as a defensive mode of managing to retain a measure of dignity in the face of its erosion is all pervasive within contemporary work situations.

According to Walter (1980), when the Texas instruments company found out how high the anxiety level of its new employees it initiated special full-day seminars. These focused on information about the company and the job and allowed many opportunities for questions and answers. The new employees were told what to expect in terms of rumours and hazing from old employees. They were also told that they were likely to succeed on their jobs. By the end of the first month, the new employees who had participated in the seminar were performing much better than those who had not.

Goldthorpe et al (1968), studied skilled and semi-skilled workers in Lutton and in their findings stressed of work as a means to an end, a context in which to earn money to purchase goods and leisure. In their research carried out with blue-collar workers in Pettersbough, Blackburn and Mann (1979), found a wider range of orientations and suggested that different ones could come into play with varying degrees of force in different situations due to the fact that workers had little choice about what they did.

The principal purpose of orientation would include aiming at first reducing the start-up costs for a new employee, since the new employee does not know the job, how the organisation works or whom to see to get the job done. Secondly, orientation helps in reducing the amount of anxiety and hazing a new employee experiences, anxiety is fear of the unknown focused on the ability to do the job while hazing takes place when old employees “kid” the new employee. Thirdly is to reduce employee turnover which is normally high during the break-in period and effective orientation can reduce this costly practice. The forth benefit would be to save time to supervisor and co-workers who will have to spend time breaking in new employees. The fifth benefit would be to develop realistic job expectations, positive attitudes toward the employer and job satisfaction which helps new employees learn realistically what the organisation expects of them and their own expectations of the job which must be neither too low nor too high (Ivamevich, 1983).

The Orientation Process

The process of orientation varies from quite informal, primarily verbal efforts to formal schedules which supplement verbal presentations and include tour of the facilities, charts and pictures of
them. Usually used when a large number of employees must be oriented. The formal programme/process covers items such as history and general policies of the enterprise, description of the enterprises services or products, organisations of the enterprise, safety measures and regulations, personnel policies and practices, compensation, benefits and employee services provided; and daily routine and regulations (Ivamevich, 1983). A study of the orientations of disadvantaged employees found that initial presentations should be in oral form followed by written materials, to avoid feeling of communication overload (Michael, 1973). To make sure that the orientation programme is complete and works well larger organisations prepare checklist of what should be done to be filled by supervisors, while others are filled by the employees.

McClintock (1967), states that written material can be in the form of handouts and booklets or combined into a single employee handout. The literature and handouts should be examined to see that the reading level is right for the employee in question.

Curtis (1972), states that the most significant part of orientation is the human side, giving new employees knowledge of what supervisors and co-workers are like, telling them how long it should take to reach standards of effective work, and encouraging them to seek help and advice when needed. His guidelines on orientation observe that orientation should start with the most relevant and immediate kinds of information and then proceed to the more general policies of the organisation. Higher education points that new employees should be directed by an experienced worker or supervisor in the immediate environment who can respond to questions and keep in close touch during the early induction period. The guidelines emphasise that new employees should be gradually introduced to the people with whom they will work, rather than given a superficial introduction to all of them on the first day, the object should be to help them get to know their co-workers and supervisors and that new employees should be allowed sufficient time to get their feet on the ground before demands on them are increased.

**Orientation Practices**

Holland and Curtis (1972), points the general orientation practices and summarises them in a supervisors orientation checklist as follows; Word of welcome, explaining overall departmental organisation and its relationship to other activities of the organisation, explaining employees individual contribution to the objectives of the department and his starting assignment in broad terms, discussing job content with employees and giving them a copy of job description (if available), explaining departmental training programmes and salary increase practices and procedures, discussing where the employee lives and transportation facilities, explaining work conditions in respect of hours of work, timesheets, use of employee entrance and elevators, lunch hours, coffee breaks, rest periods, personal telephone calls and mail, overtime policy and requirements, paydays and procedure for being paid and locked, requirements for continuance of employment by explaining company standards as to performance of duties, attendance and punctuality, handling confidential information, behaviour, general appearance and wearing uniforms, introducing new staff members to manager(s) and other supervisors with special attention being paid to the person to whom the new employee will be assigned and releasing employees to the immediate supervisor who will introduce the new staff member to fellow workers, familiarise the employee with his work place and begin on the job training.

One way to assure adequate orientation is to design a feedback system to control the programme, or use the management by objectives. A form could be used to communicate this feedback from the employee. The new employee could be instructed to “complete this checklist as well as you can. Then take it to your supervisor, who will go over it with you and give you additional information as you may need.” The job information form is signed by employee and supervisor. An appointment set up with the orientation group in the first month on the job provides a follow-up opportunity to determine how well the employee is adjusting and permits evaluation of the orientation programme. The form is designed not to test knowledge but to help improve the process of orientation (Ivamevich, 1983).
**Challenges of Orientation**

Orientation however faces challenges due to lack of on the job rewards for behaviour and skills learned, insufficient time to execute it, lack of motivation among employees, inaccurate needs analyses of the new employees, change of needs after the programme has been implemented, lack of management support and insufficient funding of orientation (Finnigan, 1983).

The study focuses on unionisable staff since they are the majority in the banking industry and would thus have wide population on which to choose its sample from, they also are the ones who feel more endangered.

**Employees in Commercial Banks**

There are two categories consisting of management staff and unionisable staff. Management is composed of chief executives, divisional directors, heads of departments and managers. Unionisable has section heads, clerks and drivers.

## 4 Research Methodology

**Introduction**

This chapter details the research design to be used to achieve the objectives of the study which are: to establish the orientation practices for employees in commercial banks and to determine the extent to which bank employees are satisfied with the orientation practices in commercial banks.

**Research Design**

The research will be conducted using ex post facto research design. According to Cohen and Manor (1984), ex post facto refers to those studies that investigate possible cause and effect relationship by observing an existing condition or state of affairs and searching back in time for the practices and whether they are effectively satisfying. Kerlinger (1983) also says that in ex post facto the researcher does not have direct control of the independent variable because they have already occurred or are inherently not manipulatable. This was chosen for the study because it is not possible to manipulate variables like age, gender, academic and professional qualifications and experience.

**Target Population**

According to Ngechu (2004), a population is a well defined set of people, services, elements and events, group of things or households that are being investigated. This suggests that the population of interest is homogenous. Information available in Central Bank of Kenya confirms that the current number of commercial banks in Kenya are 44 fully licensed with an estimated total staff of twenty thousand and this will be the target population.

**Sampling Design**

The researcher will use stratified sampling. According to Nachmias and Nachmias (1996), stratified sampling ensures that different groups of a population are adequately represented in the sample so as to increase the level of accuracy. Out of the forty four banks the researcher will use Nairobi County as a stratum and choose ten banks based on the Headquarters. From the ten banks the researcher would categorise workers according to departments and pick two from each.

**Data Collection**

A self administered questionnaire will be delivered by hand to each respondent and picked later in areas which are nearby, a mail questionnaire will also be used due to the geographical dispersion, alongside this the researcher will also use available email addresses to assist in reaching to various
respondents. The questionnaire will cover three parts: demographic variables, practices and satisfaction and the extend management supports orientation.

Data Analysis and Presentation

Data from the questionnaire will be summarised according to the objectives of the study. With the help of Statistical Package for Social Sciences it will be presented in form of percentages, pie charts, tables and frequencies based on the demographic variables of the employees.

5 References

Aspa-bna survey No. 32, (1977); Employee orientation programmes bulletin to management no. 1436 Washington DC bureau of national affairs, inc., August 1977
Blackburn R.M and man R. (1992); The working class in the labour market, London: Macmillan publishing
Buchanan D. (1992); High performance new boundaries of acceptability in worker control in salesman, human resources strategies, London: sage
Buchanan D. (1994); Principles and practice in work design; personnel management. A comprehensive guide to theory and practice in Britain, Oxford; Blackwell
Cassa di risparmio, (1971); Banking systems in Africa, como: tipographia commense-taverio
Cassa di risparmio, (1973); Savings banks and saving facilities in African countries, como: tipographia commense-taverio
Collin D. and Knights D. (1986); Men only theories and practices of job segregation in insurance, England: Gover publishing company
Duncan ondigo, (2002); Market intelligence, banking survey’, the business and finance journal, may Ed
Finnigan j. (1983); The right people in the right jobs, England: Gower publishing company, Aldershot, Hats
Fromme E. (1991); The fear of freedom; London: routeledge and kegan Paul
Goldthorpe J.H et al, (1968); The affluent worker; industrial attitudes and behavior, Cambringe; Cambridge University
Ivanevich J.M and glueck W.F, (1983); Foundations of personnel/human resource management, Plato, TX, USA: business publications
Kirkpatrick E.M, (1983); Chambers 20th century dictionary, bungay Suffolk: Richard clay Ltd.,
Kerlinger F.N, (1973); Foundations of behavioral research, 2nd ed., New York; Holt rinhart and Winston
Marian Mcclintock et al, (1967); Orienting the employee with programmed instruction’, training and development
Manuel, page 18-22
Michael amstrong, (1999); Human resource management practice, London: the bath press
Michael M.,(feb1977); 'The economics of training food service employees’, relative effectiveness of four combinations of oral and written presentations related information to disadvantage employee’, journal of applied psychology, page 105-6
Munguni L.R (2002); Trade unions organisation and structure, unpublished MBA project, University of Nairobi
Paul N. manas'she (1990); A textbook of business finance, Nairobi: memore accounting books
Walter st.john,(1980); The complete employee orientation programme’, personnel journal vol.59. Page 373-378
The Role of Pension Schemes on Motivation of Employees: A Case Study of Tuskys Supermarkets

Wanjohi, Caroline Wagithi; Wanjau, Kenneth (PhD) and Anyango, Dickson Mark Odhiambo – (Jomo Kenyatta University of Agriculture and Technology, Kenya)

1 Abstract

Purpose
Employees’ motivation is related to organization commitment and consequent increased productivity and organisational effectiveness. Employers are using occupational pension schemes as a vehicle to get promote work motivation and job satisfaction. The study sought to investigate the role of pension schemes on motivation of employees at Tuskys Supermarkets. The study was guided by the following specific objectives: the management commitment, establishment of whether Pension Administrators influence the pension scheme and the role of Trustees in running of the pension schemes.

Design/Methodology/Approach
The study used a descriptive survey methodology on a target population of 10 management staff and 30 employees. Primary data was collected using a questionnaire. The study adopted descriptive and inferential statistics aided by Statistical Package for Social Sciences (SPSS) version 17 to analyze data. Descriptive statistics involved frequency, percentage, mean and standard deviation.

Findings
The study concludes that employees were satisfied with the way the scheme is administered and that they were motivated by the pension scheme. It is recommended that employer should increase the current contribution rate of two and a half percent to ten percent of the member’s basic salary to ensure employees have enough benefits at the time of retirement to purchase a pension.

Originality/value
This is the first study done on the impact of pension scheme contribution on employee motivation in Kenya.

Keywords
Pension Scheme, Motivation, Retirement, Performance, Supermarket

2 Introduction
Occupational pension schemes were introduced to meet the different needs of employers and employees. Employers wanted a tax efficient and paternalistic means of controlling their workforce and employees wanted a secure pension in retirement that bore some relation to the income they had received while working (Hardy, 1993). Employers view their Occupational Pension schemes as an important means of attracting, retaining, motivating and increasing the level of job satisfaction amongst the staff.
The prospect of an occupational pension scheme can be attractive to employees in a variety of ways. Looking first at the recruitment process one might expect would-be employees to consider whether the employer offers a pension scheme at all. Such an employer is likely to be perceived as having a ‘caring’ orientation towards the staff, quite apart from the current and future financial benefits that pension schemes provide. Thereafter other questions are likely to arise, including whether the employer restricted membership in any way; whether the scheme was contributory or non-contributory (Terry and White, 1997). Occupational schemes provide an additional retirement pension on top of the state pension, providing better and wider ranging benefits than the state schemes and a great deal more flexibility.

Tusky’s Supermarket is the leading Supermarket Chain Store in Kenya. It is one of the largest supermarket chains in Kenya with 22 stores (Nairobi 11, Nakuru 3, Mombasa 2, Ongata Rongai, Athi River, Thika, Eldoret, Kisii and Kisumu). The chain store was on February, 2010 awarded the Super Brand Status by Super Brand East Africa. Tusky’s has proved to be a resilient and responsive brand and consequently the chain store has experienced rapid growth leading to a portfolio of 22 outlets countrywide, it was also the first African owned supermarket in Nakuru (Siku, 2010).

Majority of workers in the informal, agricultural and professional sector are not able to join occupational retirement benefits schemes. According to Central Bureau of Statistics, 2007 the total labour force is estimated at 8 million out of which 2.5 million are employed in the formal sector (Chitembwe, 2007). Few micro, small and medium size enterprises have established occupations pension schemes for their employees and a pension scheme is an extrinsic motivator. Extrinsic motivation occurs when things are done to or for people to motivate them. Motivation is concerned with the strength and direction of behavior and the factors that influence people to behave in certain ways (Armstrong, 2009).

The Retirement Benefits Authority in 2004 established that National Social Security Fund (NSSF) has the largest share of working labour force at 67%, Civil Service pension Scheme at 22%, Occupational Retirement Benefits Schemes at 11%. It is a legal requirement for all employers with a certain number of employees to register their employees with the NSSF (Nzuve, 2007). Both employees and employers should make adequate plans for retirement and should look after the well being of workers and their families the benefits offered to the members of the NSSF are limited as the scheme is financed entirely by the employer/employee monthly contributions set on a ceiling of Kshs.400 per month (Chitembwe, 2007).

Employee motivation is a continual challenge where failing back could mean the death of the organization, lack of extrinsic motivators like a pension scheme will affect employee’s performance which has been established to be directly related to employees’ motivation. This assertion was collaborated by different management theories since the work of Fredrick Taylor (Oyedele, 2010).

There is hardly any empirical study that has been conducted to investigate the role of pension schemes in motivation of employees targeting Tusky’s Supermarket. This study is therefore set to evaluate the role of pension schemes in motivating employees in the retail sector in Kenya (RBA, 2010). This study sought to determine the role of occupational pension schemes on employee’s motivation in Tusky’s Supermarkets Ltd. The study was guided by the following specific objectives:

1. To establish the level of management’s commitment towards the pension scheme.
2. To investigate whether Pension Administrators influence pension schemes.
3. To establish whether the Board of Trustees influence pension schemes.

The study may benefit various stakeholders in the Kenyan retail industry where Tusky’s Supermarket is a key player. Supermarkets play a crucial role in the social economic development of Kenya, therefore, better motivated more efficient and effective employees in this sector would contribute to the country’s growth and development (Siku, 2010).

Apart from giving advice and taking overall responsibility for pension issues, the Human Resource Manager is concerned with determining the organization pension policy and its effect on employees. This research would assist the human resource management profession in understanding the role of pension scheme in motivating employees of the supermarket.
3 Theoretical Review

**Equity Theory**

Adams’ Equity Theory calls for a fair balance to be struck between an employee’s inputs (hard work, skill level, tolerance, enthusiasm) and an employee's outputs (salary, benefits, intangibles such as recognition). Equity theory is based on the phenomenon of social comparison (Bussing, 2002). The theory is built-on the belief that employees become de-motivated, both in relation to their job and their employer, if they feel as though their inputs are greater than the outputs. Employees can be expected to respond to this in different ways, including de-motivation (generally to the extent the employee perceives the disparity between the inputs and the outputs exist), reduced effort, becoming disgruntled, or, in more extreme cases, perhaps even disruptive (Armstrong, 2003).

Adams argues that when people gauge the fairness of their work outcomes relative to others, any perceived inequity is a motivating state of mind. Perceived inequity occurs when someone believes that the rewards received for their work conditions compare unfavorably to the rewards other people appear to have received for their work. According to the theory, finding this fair balance serves to ensure that a strong and productive relationship is achieved with the employee, with the overall result being contented, motivated employees.

**Expectancy Theory**

Expectancy Theory focuses on the process by which people are motivated and not by the content of the specific goals. Under this theory people’s efforts are geared towards a reward and ability to achieve them. Employees usually determine in advance what their behavior may accomplish and outcomes. If an organization does not acknowledge its employee there can be a breakdown in motivation. This theory could also be thought as a process in which individuals calculate first whether there is a connection between effort and reward and then the probability would follow form high performance. The motivation force of a job can therefore be calculated.

Expectancy theory states that motivation will be high when people know what they have to do to get a reward, expect that they will be able to get the reward and expect that the reward will be worthwhile. The concept of expectancy was originally contained in the valency-instrumentality-expectancy (VIE) theory formulated by Vroom (1964). Valency stands for value, instrumentality is the belief that if we do one thing it will lead to another and expectancy is the probability that action or effort will lead to an outcome.

The strength of expectations may be based on past experiences (reinforcement) but individuals are frequently presented with new situations-change in job, payment system, or working conditions imposed by management- where past experiences is an inadequate guide to the implications of the change. In these circumstances, motivation may be reduced.

**Management Commitment**

Employees must have a working environment where their activities become important and this will make them feel valued and also feel they are part of the organization for any organization to increase the productivity it must be equipped with good systems Hardy (1993).

According to Armstrong and Murlis (1998), pensions are generally regarded as the most important employee benefit. They are typically financed from contributions building up to a guaranteed income for employees or their dependants on retirement or death. Companies frequently aim to provide adequate or generous pension arrangement for the following reasons: firstly there is often a perceived moral obligation to provide a reasonable level of security for employees especially those with long service; secondly good pension scheme demonstrates that the company has the long term interest of employees at heart thirdly, a good scheme helps attract and retain high quality staff and fourthly, pensions are a tax-efficient form of remuneration.
As per The Retirement Benefits (Occupational Retirement Benefits Schemes) Regulations, 2000, the employer must remit employees’ contributions to the scheme approved issuer or scheme custodian before the 10th day from the end of the month in which they were deducted from pay and also pay their contributions in line with the schedule of contributions. If the employer fails to pay the contributions, the Retirement Benefits Authority must receive a report from the schemes Pensions Administrator. The scheme funds must be kept in a trustee bank account separate from the employers account.

**Pension Administrators**

The establishment of a scheme is complicated process involving the employer, the employee, the Kenya Revenue Authority and the Retirement Benefits Authority. There are many technicalities and statutory obligations that the Employer and the Trustees appointed to manage the scheme are required to adhere to and comply with. Outsourced administration pension services providers inject professionalism and efficiency into scheme administration and employ economies of scale since they cater for several companies at the same time (Njuguna, 2010).

In compliance with the “The Retirement Benefits (Administrators) Regulations, 2007” the Administrator is required be registered with the Retirement Benefits Authority and execute an Administration Agreement with the Trustees. The role of a pension scheme administrator ensures that the Trustees have all the information required to set up the scheme in accordance with the law. And also make informed decisions for the benefits of the members. An administrator will ensure that all the legal requirements are met and the scheme complies with the law.

The pension administrator involves the employer at all stages of the member lifecycle, at joining of the scheme, during active membership, leaving service and retirement. Without a good administrator a scheme can face difficulties leading to unforeseen cost or the need for extra time and resource to put things right.

The administrator has to ensure that employees scheme records are up to date and accurate or the scheme may run the risk of additional costs in a number of areas: higher costs during wind-up; more expensive administration and claims from disgruntled members. These costs may ultimately be borne by members, the employer or both (Ben and Kathleen, 2010).

**Trusteeship**

A retirement benefits scheme in Kenya is created by way of an irrevocable Trust. The Trust is established by a deed between the employer, and the Trustees who manage the scheme with the assistance of stipulated services providers. A Trustee of a scheme must be fair, equitable, prudent, and honest and a person of high integrity, he is often referred to as a trusted friend. The Retirement Benefits Act of 1997 introduces fiduciary responsibilities that all Trustees must adhere to which include: section 40-ensure that the scheme fund is at all times managed in accordance with the Retirement Benefits Act and the Trust Deed and Rules of the scheme and any directions given by the Authority; taking reasonable care to ensure that the management of a scheme is carried out in the best interest of the members and sponsors of the scheme; section 34 – keep proper books of accounts and within three months have the books audited by an approved auditor and within six months of the end of the financial year submit the audited accounts to the Retirement Benefits Authority; section 37- ensure that the scheme has prudent investment policy as to perseverance the capital and sure market rates of return; section 38 – not to use scheme funds to five direct or indirect loans to any person or invest contrary to the prescribed investment guidelines or invest with a financial institution with a view to securing loans at a preferential rate of interest.

The role of a trustee is onerous one, it is a personal office that must be given due seriousness and it requires the a trustee to be in touch with the members and keep them updated on changes in the retirement industry and in the scheme rules. Trustees and employer have a vital role in running the pension scheme and regular consultation is important in order to keep employees
highly motivated as low level of motivation amongst employees will cause a high level of staff turnover, any changes in membership size could have a serious bearing on the cash flow of the scheme and the investment style to be adopted by Trustees (Nyokabi, 2008).

Experience show that most Kenyans are not good at managing lump sum payments and the level of education plays a paramount role and lack of education could be a setback in fighting poverty. It is feared early withdrawal of pension funds would reduce money in the hands of fund managers and cut their participation in investment. In the past social security was not a bother to many Kenyans because there was the larger extended family to fall back on in the rural areas but as the social fabric breaks and more people opting to retire in urban areas. Trustees should ensure that the scheme funds are invested prudently (Omondi, 2011).

**Empirical Approaches**

In the case study by Taylor (2000), there is a relationship between occupational pension schemes and employee retention and motivation. He studied given the spectrum of research evidence the contention that occupational schemes are reducing and minimizing voluntary quitting ahead of a pre-defined remove from this position to make to further assertions which are based on assumptions that because pension have been provided by large number of employers must be effective tools for achieving low turnover. The second involves moving from occupational pension in order to meet labour market objectives to a belief that they may retain motivated staff that they need (Igalens and Roussell, 1999).

Gough’s (2002) main aim in her research paper was to provide a better understanding of the motivations of occupation pension schemes in small companies. She concluded that for the evidence reported it shed some light on what have been barriers of small companies setting up their own sponsored company pension and suggested some clear patterns. For the majority of the employers the decision to operate gives advantage to the firms in terms of recruitment, retention and motivation of key staff and extension benchmarks within their industry.

A study by Gough and Hick (2009) which aim to examine the role of pension scheme in employment and if such pension influence decisions relation to employees motivation observed that while pension schemes still play a role in recruitment and retention of employees, the legal framework curtailed the workforce by prohibiting retirement of employees.

Behaviour resulting in desirable consequences are likely to recur while those that result in undesirable consequences are less likely to recur (Skinner, 1969). Skinner indicated that what an organization appears to reward is the behavior that will be seen as the model of success. He advised managers to state which behaviour will be rewarded and which one will not, and to tie rewards to individual performance. Other researches (Kreitner, 1969) have indicated that Skinner overemphasized the importance of external outcomes such as pay and promotions, ignored the role of internal outcomes such as feelings of accomplishment and recognition and failed to consider the importance of individual needs, expectations and values.

Modern management practices are shifting manager’s emphasis from control to concern for staff creativity, interests and welfare (Steiner, 1973) and as times and conditions change, past motivation strategies become ineffective Buford et al, (1988). It is harder for technical workers to fulfill their responsibilities without adequate staff incentives. Among the incentives affecting technical workers in Africa and Kenya in particular are housing, transportation, pay, health insurance and subsistence allowances while on official duty. Other incentive problems include supervisors who, although well trained in basis sciences, often lack personnel management skills need to motivate their staff.

**4 Methodology**

The research design selected for the study was descriptive survey. The study used purposive sampling to get the target population of study which consisted of members of staff of Tusks Supermarket who are in the pension scheme. They were targeted as they were in a better position to provide
relevant information about the benefits of a pension scheme. List containing the members in the pension scheme was obtained from the Human Resource Department of Tuskys Supermarket. The study targeted 10 management level and 30 other employees were all selected for the study being a survey. All the respondents (40) fully answered and returned the questionnaires making a response rate of 100%.

The study collected both primary and secondary data. Primary data was gathered using close and open-ended questionnaires. Secondary data was gathered from past published scholarly articles explaining theoretical and empirical information on occupation pension scheme and motivation. Pilot study was conducted on 3 respondents. The study conducted a reliability test using Cronbach Coefficient Alpha to determine how items correlate among themselves. The test results are presented in Table 1 which shows that all the scales were significant:

Table 1: Scale Reliability Results

<table>
<thead>
<tr>
<th>Items</th>
<th>Cronbach Coefficient Alpha</th>
<th>No of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managements Commitment</td>
<td>0.754</td>
<td>6</td>
</tr>
<tr>
<td>Pension Administrators</td>
<td>0.877</td>
<td>6</td>
</tr>
<tr>
<td>Trusteeship</td>
<td>0.814</td>
<td>6</td>
</tr>
</tbody>
</table>

The data was analyzed using descriptive and inferential statistics with assistance of Statistical Package for the Social Sciences (SPSS) Version 17. The descriptive statistics such as frequencies, percentage, mean and standard deviation were used. The final findings were presented using tables, graphs, pie charts and statistical analysis.

Descriptive statistics are distinguished from inferential statistics in that descriptive statistics aim to summarize a data set quantitatively without employing a probabilistic formulation, rather than use the data to make inferences about the population that the data are thought to represent. Inferential statistics tries to make inferences about a population from the sample data.

For this study simple regression was used as the study was dealing with one independent variable, pension and one dependent variable which are motivation (Mugenda et al, 2003). The simple regression model formula is used:

$$ Y = \beta_0 + \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \beta_5 \chi_5 + \beta_6 \chi_6 + \beta_7 \chi_7 + \beta_8 \chi_8 + \epsilon $$

Where $\beta_0$ is the constant or intercept, $\beta_1 - \beta_8$ are the regression coefficients (change in $Y$, given one unit change in $\chi$). $Y$ is the dependent variable (Level of Motivation), $\chi_1$ is Scheme Entry, $\chi_2$ is Scheme Effect, $\chi_3$ is Feeling about Scheme, $\chi_4$ Contribution Rate, $\chi_5$ Retirement Benefits, $\chi_6$ Scheme Administration, $\chi_7$ Annual Statement and $\chi_8$ Scheme Education while $\epsilon$ is the error term.

Analysis of variance (ANOVA) statistics was used to test the significant of the regression model. The study used t-test to show the significance of each independent variable in the regression model.

5 Data Findings and Analysis

Employment Entitlement to join the Pension Scheme

Table 2 indicates that majority, (73.3%) of the respondents were entitled to join the pension scheme and 26.7% of them indicated that they were not entitled to join the pension scheme. The reasons for them not joining the pension scheme included the willingness of the employee and probation period which was one year. Employees who had surpassed the period of probation were entitled to join the pension scheme.
Table 2: Entitled to Join the Pension Scheme

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Extent to which the Pension Scheme Affects Employee’s Motivation**

Majority (43.3%) of the respondents reported that the pension scheme had a moderate effect on the employees’ motivation while (40.0%) of the employees indicated that it had a large effect on the employees’ motivation. Further, majority (60%) of the employee indicated that pension schemes enhanced their level of motivation while (30%) slightly agreed and (10%) were undecided on the same.

Majority (70%) of the managers felt that pension had a large effect on the employees’ motivation and (30%) of them felt it had a moderate effect on the employees’ motivation. Herzberg et al, (1959) in his study indicated that low level of motivation amongst employees will cause a high level of staff turnover. People work better and faster when they have pride in their work and organization and Pension schemes play a significant role in limiting staff turnover.

**Current Contribution Rate**

As Table 3 indicates, majority (80.0%) of the respondents agreed that they were happy with the current contribution rate while (13.3%) of them slightly agreed. This depicts that majority of the Supermarket’s staff were happy/satisfied with the contributions they made in pension scheme.

Table 3: Current Contribution Rate

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>24</td>
<td>80.0</td>
</tr>
<tr>
<td>Slightly agree</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Knowledge of Benefits Entitled to Employees on Retirement**

As Table 4 indicates, majority (63.3%) reported that they knew the benefits they were entitled to on retirement, while (36.7%) of them were not aware of the benefits. This is because they lack full knowledge on pension scheme issues and had never been educated on the pension scheme issue. The study observed that there was need for educating the members on the benefits they are to accrue when they participate in their present pension scheme in Tuskys Supermarket. Armstrong (2003) indicates that educating managers and employees that they can take on personal responsibility and make informed choices on the way they want to work and move into retirement with the appropriate pension provision to achieve this.
Table 4: Knowledge of Benefits Entitled to at Retirement

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19</td>
<td>63.3</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Scheme Administration Influence the Pension Scheme Contribution**

Table 5 illustrates that majority (76.7%) of the employees are satisfied with the way the scheme was administered and (23.3%) of them were not satisfied. All the (100%) managers were satisfied with the way the scheme was administered. The level of dissatisfaction among employees could have resulted from employees’ lack of education on the importance of pension schemes. There are many technicalities and statutory obligations that the Employer and the Trustees appointed to manage the scheme are required to adhere to and comply with. Outsourced administration pension services providers inject professionalism (Njuguna, 2010). The administration of the pension scheme which is the trustee should note that there is need of more education on the importance of the scheme on the employees’ future life.

Table 5: Satisfaction on the Way the Scheme is Administered

<table>
<thead>
<tr>
<th></th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Issuing of Membership Statements**

Table 6 indicates majority (46.7%) of the respondents indicated that they were issued with a membership statement always, while (43.3%) of them indicated they were issued sometimes and 10.0% of them said they were rarely issued with an annual membership statement. The administrator has to ensure that employees scheme records are upto date and accurate or the scheme may run the risk of additional costs in a number of areas: higher costs during wind-up; more expensive administration and claims from disgruntled members. The pension administrator involves the employer at all stages of the member lifecycle, at joining of the scheme, during active membership, leaving service and retirement.

Table 6: Issuing of Membership Statement in Every Financial Year

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>Sometimes</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>Rarely</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Extent to Which Education Is Given to Members**

As Table 7 indicates, majority (53.4%) of the respondents slightly agreed that they got enough education on changes in retirement industry and in the scheme rules, 33.3% of them agreed that
they were offered enough education and only (13.3%) of them disagreed on the getting enough education on the changes in retirement industry and in the scheme rules. The managers also agreed that they were offered education although was not sufficient. According to the “Retirement Benefits (Administrators) Regulations, 2007” the Administrator is required to educate the members and Trustees, however, this was rarely the case at Tuskys Supermarket.

Table 7: Extent to Which Education Is Given to Members

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>10</td>
</tr>
<tr>
<td>Slightly agree</td>
<td>16</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

On the factors that were affecting the scheme administration the findings pointed out to: lack of transparency and selfishness, lack of communication, conflict of interest among Trustees board members, employer-employee conflicts, lack of recognition and lack of training/education on the importance of the scheme. There were also positive factors which included introduction of membership cards, holding of seminars to educate members on the importance of the pension scheme and adjustment of pension according to the cost of living.

**Taking Part in Election of Scheme Trustee**

As Table 8 indicates that majority (13.3%) of the respondents took part in the election of member nominated Trustees, (6.7%) sometimes took part and (3.3%) of them rarely took part. Majority of the managers also concurs with the employees that they took part in the election of the board of the scheme trustee. Trustees and employer have a vital role in running the pension scheme and regular consultation is important in order to keep employees highly motivated (Nyokabi, 2008). The study observed that the supermarket management has an upper hand on the pension scheme other than the employees of the supermarket. This is because they may be more conversant of the better ways of investing the money from the trustee hence getting maximum earnings.

Table 8: Taking Part in Election of Scheme Trustee

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2</td>
</tr>
<tr>
<td>Rarely</td>
<td>1</td>
</tr>
<tr>
<td>Never</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

**Satisfied with Current Board of Trustees**

As Table 9 illustrates, majority (50%) of the employees were satisfied with the current Board of Trustees while (33.3%) of them were slightly satisfied with it and (16.7%) of them were not decided whether satisfied or not satisfied. (80%) of the managers were satisfied with the Board of Trustees and (20%) were slightly satisfied. Section 40 of the Retirement Benefits Act of 1997 requires the Trustees should ensure that the scheme fund is at all times managed in accordance with the Retirement Benefits Act and the Trust Deed and Rules of the scheme and any directions given by the Authority and should take reasonable care to ensure that the management of a scheme is carried out in the best interest of the members and sponsors of the scheme. The level of motivation among
employees could depend on many factors and as such where the employees should participate in electing their own representative on the Board of Trustees.

Table 9: Satisfaction with the current Board of Trustees

<table>
<thead>
<tr>
<th></th>
<th>Managers</th>
<th></th>
<th>Percent</th>
<th></th>
<th>Employees</th>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied</td>
<td>8</td>
<td></td>
<td>80.0</td>
<td></td>
<td>15</td>
<td></td>
<td>50.0</td>
</tr>
<tr>
<td>Slightly Satisfied</td>
<td>2</td>
<td></td>
<td>20.0</td>
<td></td>
<td>10</td>
<td></td>
<td>33.3</td>
</tr>
<tr>
<td>Undecided</td>
<td>3</td>
<td></td>
<td>16.7</td>
<td></td>
<td>3</td>
<td></td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td></td>
<td>100.0</td>
<td></td>
<td>30</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Trustees Ensure Best Interest of the Members and Sponsors of the Scheme**

Table 10 illustrates majority (86.7%) of the respondents felt that the Board of Trustees took reasonable care to ensure that the management of the scheme was carried out in the best interest of the members and sponsors of the scheme and only (13.3%) of them who felt otherwise. As per The Retirement Benefits (Occupational Retirement Benefits Schemes) Regulations, (2000) section 34, Trustees should keep proper books of accounts and within three months have the books audited by an approved auditor and within six months of the end of the financial year submit the audited accounts to the Retirement Benefits Authority. The Board of Trustees should keep in touch with the members and keep them updated on changes in the retirement industry and in the scheme rules. Hence, the Board of Trustees and employer have a vital role in running the pension scheme and regular consultation is important in order to keep employees highly motivated.

Table 10: Trustees Ensure the Scheme Is Run In the Best Interest

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Regression Results**

The study conducted a regression analysis to determine how employees' motivation is influenced by pension scheme at Tuskys Supermarket Ltd. The results are shown in Table 11:
Table II: Regression Results

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.928</td>
<td>.506</td>
<td>1.836</td>
<td>.081</td>
</tr>
<tr>
<td>Scheme Entry</td>
<td>.076</td>
<td>.183</td>
<td>.084</td>
<td>.415</td>
</tr>
<tr>
<td>Scheme Effect</td>
<td>.012</td>
<td>.066</td>
<td>.322</td>
<td>.177</td>
</tr>
<tr>
<td>Feeling about Scheme</td>
<td>-.091</td>
<td>.057</td>
<td>-.298</td>
<td>-1.602</td>
</tr>
<tr>
<td>Contribution Rate</td>
<td>.088</td>
<td>.081</td>
<td>.246</td>
<td>1.084</td>
</tr>
<tr>
<td>Retirement Benefits</td>
<td>-.350</td>
<td>.169</td>
<td>-.422</td>
<td>-2.080</td>
</tr>
<tr>
<td>Scheme Administration</td>
<td>.422</td>
<td>.189</td>
<td>.446</td>
<td>2.228</td>
</tr>
<tr>
<td>Annual Statement</td>
<td>-.026</td>
<td>.100</td>
<td>-.048</td>
<td>-.259</td>
</tr>
<tr>
<td>Scheme Education</td>
<td>-.075</td>
<td>.073</td>
<td>-.207</td>
<td>-1.039</td>
</tr>
</tbody>
</table>

6 Conclusions

The study concludes that the management of Tuskys Supermarket is committed to the pension scheme in place hence new employees should be encouraged to join the pension scheme through educating them on the benefits of pension schemes so that they can make informed decision. All employees should have the knowledge of the benefit entitled to them on retirement.

All employees should be satisfied with the way the scheme is administered since it will raise their level of motivation, through issuing membership statement yearly, educating the employees on any changes of the scheme. The pension administrator should ensure that all the legal requirements are met by the Trustees and the scheme complies with the law.

There should be transparency through good channels of communication, introducing of membership cards and holding of seminars to educate members. Regular consultation should be done among the administrators of the pension scheme and the employees. There are other factors other than the pension that affect the level of motivation of employees in Tuskys Supermarket.

7 Recommendations

The study recommends the following based on the findings and conclusions: The employer should increase the current contribution rate of five percent to ten percent of the member’s basic salary to as to ensure employees have enough benefits at the time of retirement to purchase a pension. Members should also be encouraged to make additional voluntary contributions which will make them boost their retirement benefits. Employees will be motivated on retirement if the accumulated contribution is enough to purchase a pension.

Commitment among the administrators of the scheme and the employer is important on issues affecting the pension scheme through educating members on its importance. There should be more consultation between the employer and employees on the administration of the pension scheme especially through the election of member nominated Trustees who represent the employees on the Board of Trustees. This will create trust and motivate the employees to work harder.

The Board of Trustees should take the initiative of training and educating members the importance of the pension scheme after employing them. Channel of communication between the employer and the employees can bridge the gap of mistrust about the pension scheme investments.
8 References


RBA (2010). Website, Retrieved on November 20, 2010 from http://www.rba.go.ke, 10.00am


Social Economic Factors Affecting Women Loan Repayment Behaviour in KWFT

Lyani, Mary Nelima; Nganga, Stephen Irura and Cheruiyot, Thomas – (Jomo Kenyatta University of Science and Technology, Karatina University College and Moi University, Eldoret, Kenya)

1 Abstract

Women encounter greater limitations and fewer opportunities than men, especially with regard to income-generating activities. They face social and economic constraints that perpetuate poverty and spans generations. Significant opportunities exist in both formal and informal sector that can empower women economically. Emergence of microfinance institutions has had a great impact as an apt method of increasing delivery of formal rural credit and savings facilities on sustainable and non-exploitative terms albeit of financial imprudence stemming from poor credit repayment records. There is however, a paucity of empirical research on social economic factors that affect loan repayment behavior of women in Kakamega north district. Main objective of this study was to contribute to this domain by conducting an in-depth analysis of the socio-economic factors. The theoretical basis of this study borrows heavily from the self efficacy theory. The study employed descriptive design for primary data collection on variables contributing to the loan repayment behavior. A Sample (236) respondents representing 30% of the targeted population of 793 KWFT women loan borrowers spread among 13 locations of Kakamega North District was selected by stratified and random sampling techniques. Primary data was collected by use of structured and semi-structured questionnaire and interview schedule. Observations were carried out where necessary. A binary logistic regression empirical model was employed to estimate the contribution of each variable to credit repayment rate. The study findings reveal that there is a significant relationship between socio-economic factors and loan repayment behavior by women loan borrowers. The study recommends paradigm shift in the micro-credit management model to allow more direct involvement by micro-finance firms in the management of disbursed funds.

Key words: microfinance, repayment, poverty, empowerment, gender

2 Introduction

International organizations are coming to the realization that Non-Governmental Organizations (NGOs) are veritable and effective channels to ensure programme implementation effectiveness, particularly in poverty alleviation projects and first hand knowledge of the needs and interest of the poor (Okumadewa, 1998). Thus, microfinance intermediaries comprise mostly of NGOs. According to Dichter (1999), the World Bank sustainable Banking with the poor project (SBP) in mid-1996 estimated that there were more than 1,000 microfinance institutions in over 100 countries, each having a minimum of 1,000 members and with 3 years of experience. In a survey of 206 of such institutions, 73 percent were NGOs, 13.6 percent credit unions, 7.8 percent banks and the rest savings unions.
In Kenya, Women Micro and Small Enterprises MSEs make use of different financing sources depending on their circumstances. It depends on the scale of their enterprises, their level of personal and family savings, whether group lending programmes meet their needs, the cost of financing, their business development and growth objectives, and their ability to meet the collateral security requirements of banks. The predominant sources of financing for women in the informal and micro-sector (the grassroots “underclass”) are group savings programmes, merry-go-rounds, ROSCAs and micro finance NGOs, including WEEC and the KWFT. The “elitist” classes of women entrepreneurs are more likely to be able to secure financing from the commercial banks, but they also use their own savings or, to a limited extent, participate in professional savings/credit groups, like the United Women's SACCO and the National Association of Self-Employed Women of Kenya (NASEWoK). The “missing middle” group makes use of micro-finance at the lower level (possibly the KWFT) but they soon outgrow the low lending limits. Unable to meet the requirements for commercial bank loans, they either grow at a slower rate than they would wish, or participate in the membership of higher-level SACCOs, like the United Women's group or NASEWoK.

The Kenyan economic growth shrink from 7.1% in 2007 to 1.7 in 2008 means that the much hyped vision 2030 now faces serious threat with the government scaling down projected growth rate by 2010 to a moderate 3% for 2009, (Financial journal, The Standard, Tuesday, September 8th, 2009). This means that the rural financial market will even be less efficient. There are already a number of factors suppressing the development of an enabling financial market in the rural areas, especially in the developing countries, (Carter and Water, 2004). Some of these factors include absence of convenient saving facilities, high transaction costs, inability to expand services to respond to increasing population and poor loan repayment due to high interest rates and terms have reduced development opportunities (Nwanna, 2000).

Statement of the Problem

Small enterprises over the last ten years have been recognized to be the major force in job creation, innovation and economic development (Gordon, 2000). On the same breathe according to the financial Access Survey 2007 by the FSD Kenya, the banking sector serves only 19% of the Kenya's bankable population with 8% being served by other financial services providers such as MFIs and SACCOs. About 38% is totally excluded and 35% rely on the informal financial service providers such as ROSCAS. The indication is that access to financial services is limited thus the need for the study to find out if women loan repayment trend could be the reason causing poor accessibility to loans especially in the rural areas. Even though economic theory suggests that a more flexible repayment schedule would benefit clients and potentially improve their repayment capacity, micro-finance practitioners argue that the fiscal discipline imposed by frequent repayment is critical to preventing loan default. Some times most women loan borrowers apply for loans with well laid down investment plans but after getting the loans they use for other purposes other than the intended purpose for which the loan was taken, which results to poor repayment behavior. Women in the rural area face many challenges; they are left as defacto leaders by being widowed or after their husbands’ abandon them and thus remain the sole breadwinners of their households With the view of the above problem the following questions deserve attention. Are there some factors that enhance the loan default problem in such micro financing schemes? What are the loan repayment trends among rural women loan borrowers in Kakamega North district? What are the factors that influence the loan repayment performance of borrowers financed by MFIs? What are the economic and social factors affecting loan repayment among rural women in the district? In an attempt to answer these questions this study tries to analyze the factors behind loan repayment problems, and the impact of the micro financing scheme on the poor beneficiaries by taking the case of KWFT Kakamega North branch.
Purpose of the Study

The purpose of the study was to establish the Social Economic factors affecting women loan repayment behaviour in Kakamega North District who are members of Kenya Women Finance Trust. By finding out the loan repayment trends among rural women loan borrowers, the factors contributing to loan repayment behavior among women borrowers in Micro Finance Institutions and the nature and magnitude of the relationship between the socio-economic factors and the loan repayment behavior among women borrowers.

Literature and Conceptual Base for the Study

The exodus of males to cities (rural-urban migration) depleted rural labor forces in many developing countries and the ever rising unemployment levels, has left rural women as de facto leaders and sole providers for their households as noted by Kiteme (1992). But the position of household head for many women is disadvantageous culturally, economically, legally, and socially. To that end, a poverty study by Buvinic (1997) in 41 developing countries revealed that more women in rural areas were made poorer and their economic challenges exacerbated by being widowed or abandoned by their husbands for long periods. They faced special social and economic constraints that perpetuated a cycle of low-education and low-paying jobs from one generation of women to another. Interventions at the household level seem to be inadequate, and thus the need to expand their socio-economic opportunities exists (Bardhan, 1996). Some women in Kenya already demonstrate competence through the use of “informal networks” frequently known as “women’s self-help groups.” Their actions also complement efforts of various agencies to reduce poverty (Snow & Buss, 2001) and improve the lives of rural people. Community groups are popular institutions in Kenya’s rural areas; groups help provide services that the government may have failed to deliver. They take the forms of burial groups, church mission groups, women’s groups, or youth groups (Freeman, Ellis, & Allison, 2004). Kenya’s local self-help development efforts are predicated on the spirit of Harambee - a Swahili word that connotes community efforts for a common goal (Thomas, 1988). Modern women’s groups’ objectives now focus more on income-generating projects rather than solely welfare activities. They are multi-purpose and combine mutual financial assistance in the form of rotating credit associations to provide the means to pursue social, educational, and economic activities (Mbugua-Murithi, 1997).

Kenya’s population is just under 32 million. GDP in 2002 was reported to be Ksh. 850.1 billion (equivalent to 32 billion international dollars in PPP), resulting in a GDP per capita of Ksh. 26,996 (international $1,120 in PPP) Figures in national currency come from the Kenya Economic Survey 2003. GDP and GDP per capita using purchasing power parity are taken from the World Bank, World Development Indicators 2003. The economy has been deteriorating over the past two decades, with low economic and employment growth and a decline in productivity Interim Investment Programmes for the Economic Recovery Strategy for Wealth and Employment Creation 2003-2007, Ministry of Planning and National Development, Republic of Kenya, Nairobi, 2003, p. 4. The percentage of people living below the poverty line has increased steadily since 1990 and is estimated at 56 per cent in 2003. Two thirds of Kenyans live in rural areas and 75 to 80 per cent of employment is in the agricultural sector. Kenya’s liberalization efforts began in earnest in 1994 following its move to a multi-party system. However, because of government downsizing and the retrenchment of many large private sector and foreign-owned firms, formal sector employment has been decreasing. Lack of employment alternatives has thrust a growing number of people into self-employment activities to ensure a livelihood. Throughout the 1990s the growth rate of the informal economy considerably outpaced that of the formal sector. From 1999-2002, the MSE sector was responsible for generating 675,000 jobs annually. Struggling to thrust the country into a state of economic recovery, the new government has stated its commitment to “integrating the MSE sector into the national economic grid”, “Sessional Paper on Development of Micro and Small Enterprises for Wealth and Employment Creation”, (Draft, February 2004), Ministry of Labour
African women entrepreneurs are playing an increasing role in diversifying production and services in Africa economies. Fostering women’s entrepreneurship development is crucial for the achievement of Africa’s broader development objectives, including economic development and growth. However, many women entrepreneurs are operating in more difficult conditions than men entrepreneurs. The constraints that impede all entrepreneurs such as political instability, poor infrastructure, high production costs, and non-conducive business environment, tend to impact more on businesswomen than businessmen. In addition, women’s entrepreneurial development is impeded by specific constraints such as limited access to key resources (including land and credit), the legal and regulatory framework, and the socio-cultural environment. Furthermore, the combined impact of globalization, changing patterns of trade, and evolving technologies call for skills that women entrepreneurs on the continent do not for a large part possess, as many more women than men lack the requisite level of education and training, including business and technical skills and entrepreneurship training.

In the statement of the problem, it was indicated that small enterprises over the last ten years has been recognized to be the major force in job creation, innovation and economic development (Gordon, 2000). On the same breathe according to the financial Access Survey 2007 by the FSD Kenya, the banking sector serves only 19% of the Kenya’s bankable population with 8% being served by other financial services providers such as MFIs and SACCOs. 38% is totally excluded and 35% rely on the informal financial service providers such as ROSCAS. Figure 1 graphically illustrates the financing options available to each of these three groups of women entrepreneurs.

![Credit Sources of the Three Segments of Women Entrepreneurs](image)

The indication is that access to financial services is limited thus the need for the study.

The primary purpose of entrepreneurship promotion strategies is to motivate and inspire members of the population (women, in this case) to pursue entrepreneurship as a viable and feasible employment option. However, it is also important to make the support environment more favourable towards the role of women as entrepreneurs. This is easier in a country or region where entrepreneurship is already perceived as being a legitimate employment activity. In the context of Kenya, entrepreneurship has only recently been positioned as a valued economic activity. Members of the current SMEs sector were more likely to have started an enterprise “out of necessity” since there were no employment alternatives. Therefore, there is still much work to be done to reinforce and strengthen the overall “entrepreneurial culture” in the country, especially if the current generation of young people is to view it as an attractive option for “pursuing opportunity”. In
the case of women, the entrepreneurship promotion challenge is even more daunting. As one key informant aptly framed it, “when you talk about a woman entrepreneur in Kenya, the image immediately goes to the woman selling vegetables in the market”. Gakure (2003) summarizes a series of studies highlighting the stigmatization of women entrepreneurs in Kenyan society. Even successful women entrepreneurs are viewed negatively because society does not expect women to succeed on their own without male assistance. Challenging these stereotypes is an important starting point for creating a more favourable environment for women entrepreneurs in Kenya.

McCormick (2001) noted significant differences in the performance of women’s enterprises vis-à-vis those of Kenyan men. Their enterprises are smaller, less likely to grow, less profitable, and begin with less capital investment than those owned by men. Not only is there a great deal of gender segregation by sector (with women dominating in food processing, beer brewing, hairdressing, dressmaking, and retail of second-hand clothing, while men dominate in metalwork, carpentry, vehicle repair, shoe making, construction and transport), but women and men operate from different locations. Men are twice as likely as women to locate in trading centres, commercial districts or roadside locations; women are almost twice as likely to be operating from the home. Women are three times as likely as men to belong to some type of business association, although there are indications that women’s networks have less power to assist their businesses.

McCormick (2001) isolated three factors that account for these differences in enterprise performance. The first factor has to do with the level of education. On average, women entrepreneurs are less educated than their male counterparts and twice as likely as men to be illiterate. The major reasons for this difference are institutional in nature. Marriage institutions discourage investment in women’s education and the division of labour assigns a greater share of household responsibility to girls. Because they have lower educational attainment, they are also less likely to benefit from management and technical training programmes. The second factor has to do with the opportunity to accumulate savings. Because women have lower levels of education and are segregated into lower paying jobs, they have lower savings with which to start a business.

When it comes to theory, a number of arguments have been put forward to explain gender-differences with respect to repayment rates (Armendariz and Morduch 2005). For instance, based upon her experience in Grameen-villages in Bangladesh, Todd (1996) argues that women are more conservative or cautious in their investment strategies, and therefore have better repayment records. Also from Bangladesh, Rahman (2001) and Goetz and Gupta (1996) argue that women are more easily influenced by peer-pressure and the interventions of the loan-managers. Organization is also a constraint that manifests itself as a lack of records or poor bookkeeping as well as inadequate organizational and management skills (Mbugua-Murithi, 1997).

However, a dire need exists to train more women in group dynamics and team building strategies, record keeping, leadership skills, monitoring and evaluation of projects, as well as proposal writing, including grants and business plans (Kane, Walsh, & Nelson, 1991). According to Kane et al (1991) the immediate social and economic environment experienced at the household level can be linked to a trend that makes most women’s groups struggle to operate their businesses efficiently. So, efforts must be made to strengthen women’s groups’ management and logistical capacity (Hertz, 1989). The capacity for expansion of local industries in rural areas exists, although women’s groups have to contend with “the harsh competition to corner a small section of a limited market” (Feldman, p. 82).

“Entrepreneurial, management, and technical training are very important to enterprise development” (Stevenson & St-Onge, 2005, p. 42). There are many governmental, private, and non-governmental agencies professing to offer training in areas such as starting a business, continuing its existence, and expanding it, yet very few female entrepreneurs have access to such training. Additionally, many women who own micro-enterprises still can not access this type of training, which they need for the expansion of their livelihoods (Stevenson & St-Onge).
4 Theoretical Framework

The conceptual base for this study was drawn from the theory of self-efficacy postulated by Bandura (1995). It “refers to beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1995 p. 2). Self-efficacy affects people’s thoughts, feelings, actions, motivations, efforts, and determinations to confront the obstacles faced in life. Culture affects the type of information people select and incorporate into their judgments, which may, in turn, reflect their self-efficacy (Oettingen, 1995). In this study, it was assumed that women held strong beliefs about the need to change their destinies and enhance their livelihoods in an environment with poor incomes. Due to strong beliefs in their personal abilities and chances of success, Mbugua-Murithi (1997) contended that women devise strategies to help them meet their demands, including the formation of self-help groups and Microfinance.

Moreover, Oettingen (1995) used the theory of self-efficacy to explain how change can take place in social systems, especially in societies that are collectivist. This is true of Kenya’s traditional rural societies where women help each other in times of need such as death, sickness, or with the provision of farm labor (Karani, 1987; Srujana, 1996; Thomas 1988). High self-efficacy means that people are more likely to participate in activities in which they believe they can succeed. It promotes the premise that individuals have the potential to mitigate and improve their situations. For instance, a high sense of self-efficacy correlates with higher resilience to problems found in life, but, conversely, low self-efficacy reciprocates with failure. Finally, the theory identifies factors that affect the success or failure of individuals, including their collective or group actions.

5 Methodology

This descriptive survey study used 30% of the target population, 793 KWFT women loan borrowers, chosen from each of the stratum whereby the target population was divided into strata (locations) selected by use of simple random sampling, which yielded a sample size of 236 respondents from the thirteen location in Kakamega North district. Patton (2002) recognizes a sample size 30% of the target population as enough for descriptive survey studies. This approach ensured that all the strata within the study area were included in the study and thus taking into consideration the socio-economic dynamics of the area by spreading the sample Kakamega North district. The main data collection instruments were questionnaires and interviews.

Data Analysis

Data collected was analysed descriptively and presented in form of frequency and percentage tables. Logit model was adopted in the study and the data was analysed based on the model variables.

6 Results

The Loan Repayment Trend among Rural Women Loan Borrowers

Past studies by Githimu (2006) showed a high positive correlation between repayment and drop outs, the reasons for client exit however, have been both internal and external and cover various aspects of Micro Finance Organizations (MFO) operations. The study established that drop out rates in the Rift Valley Region, 75% of drop out was due to staff related issues, 64% on financial cost of the products and services, and 88% attributed to group dynamics. Viability of micro finance institutions is through repeated borrowings, which provide invaluable financial services to low-income households in Kenya. Repeat borrowers reduce MFI administrative costs, lower risks, and increase organizational productivity. In practice, however, several MFIs are experiencing high borrower exit, for example, termination of the lender-client relationship, which hamper organizational and financial sustainability. This study sought to specifically establish the socio-economic factors affecting loan repayment behaviour among women in Kakamega district.
Summary of Respondents Background Information

The study found it worth to establish the age of the respondents and from the study findings it was revealed that most of them 39.5% were above the age of 40 years. In typical African community marriage is reserved for the mature and those who get into it are those who are capable of taking care of their family. From the study most of the women 59.3% were married. With the current economic hardship most of the countries are rallying for small families by encouraging its citizens to practice family planning. According to the study findings most of the loan borrowers 68.5% have 3-5 children. As shown in Table 1.

Education is a gate pass to employment in most of the private and public sectors and when someone does not have good education he/she will be forced to find other ways of sustaining their families and in African communities women are most disadvantaged. From the study 71.6% of the women have secondary education as shown in table 1.

Table 1: Background Information

<table>
<thead>
<tr>
<th>Age of respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30 years</td>
<td>52</td>
<td>32.1</td>
</tr>
<tr>
<td>30-40 years</td>
<td>46</td>
<td>28.4</td>
</tr>
<tr>
<td>above 40 years</td>
<td>64</td>
<td>39.5</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>22</td>
<td>13.6</td>
</tr>
<tr>
<td>Married</td>
<td>96</td>
<td>59.3</td>
</tr>
<tr>
<td>Divorced</td>
<td>20</td>
<td>12.3</td>
</tr>
<tr>
<td>Widowed</td>
<td>24</td>
<td>14.8</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of children</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td>3-5</td>
<td>111</td>
<td>68.5</td>
</tr>
<tr>
<td>above 5</td>
<td>24</td>
<td>14.8</td>
</tr>
<tr>
<td>none</td>
<td>16</td>
<td>9.9</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>98.8</td>
</tr>
<tr>
<td>Non response</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary certificate</td>
<td>116</td>
<td>71.6</td>
</tr>
<tr>
<td>Diploma</td>
<td>24</td>
<td>14.8</td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Masters</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>8.6</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

This could mean that the number of years a borrower has enhances her creditworthiness in the eyes of the potential lenders. This shows that age is translated into experience of the borrower in the economic activity being financed like farming. Women taking loans are seeking to find finance to start business so that they can help their families financially. It also meant that the women in Kakamega north district are working hard to provide to for their families by also taking loans.

It also implies that women are opting to start small scale business to support their families since majority of them 71.6% do not have college education. However the number of years of formal education is a sign of potential human capital which has a positive effect. An educated woman is able
to evaluate group activities and monitor other group members’ loan utilization and repayment and take advantage of the training and visits by the officials of the microfinance institutions. According to Ziderman (2003), globally, women face more restrictions on their choices and opportunities than men do; for instance, unequal opportunity in school restricts opportunities for employment and also a creative life. Such gender bias has led to lower survival for women despite their biological advantage. Sub-Saharan Africa is among the areas where poverty is geographically concentrated, and it is so pervasive that many of the policies concerned with poverty alleviation encompass practically most of the development plans. Ziderman (2003) asserted that “small-scale informal sector enterprises” presented enormous opportunities in Sub-Saharan Africa for the employment of women. The development of skills through targeted programs is essential to improving the livelihoods of disadvantaged groups, including women; training and supervision could better enable women to function well in the informal sector.

The Amount of Loan Received from KWFT

The study also sought to find out the amount of loan received from KWFT and according to 48.1% of the respondents agreed that they received from 30001-40000 kshs.

Table 2: The Amount of Loan Received from KWFT

<table>
<thead>
<tr>
<th>Amount Received</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10000</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>10001-20000</td>
<td>14</td>
<td>8.6</td>
</tr>
<tr>
<td>20001-30000</td>
<td>22</td>
<td>13.6</td>
</tr>
<tr>
<td>30001-40000</td>
<td>78</td>
<td>48.1</td>
</tr>
<tr>
<td>40001-50000</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td>over 50000</td>
<td>29</td>
<td>17.9</td>
</tr>
<tr>
<td>Non response</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Purpose of Loan Borrowed

When asked the use of loan borrowed most of the respondents 56.8% borrowed the loan for purchase of agricultural inputs.

Table 3: Purpose of Loan Borrowed

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture inputs</td>
<td>92</td>
<td>56.8</td>
</tr>
<tr>
<td>Petty trade</td>
<td>57</td>
<td>35.2</td>
</tr>
<tr>
<td>Purchase of farm oxen</td>
<td>21</td>
<td>13.0</td>
</tr>
<tr>
<td>Fattening</td>
<td>15</td>
<td>9.3</td>
</tr>
<tr>
<td>Opening salon</td>
<td>2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Advisory Visits and Training for KWFT Loan Members

Study sought to find out whether KWF employees helped the loan borrowers through supervision and most of them 86.4% and 87% agreed that they were supervised in regards to loan utilization and repayment 88.9% feel supervision is important and 98.8% agree that training before getting loan is very important.
Table 4: Advisory Visits and Training for KWFT Loan Members

<table>
<thead>
<tr>
<th>Advisory visits</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>If ever supervised regarding loan utilization</td>
<td>140</td>
<td>86.4</td>
</tr>
<tr>
<td>If ever supervised regarding loan repayment</td>
<td>141</td>
<td>87.0</td>
</tr>
<tr>
<td>If supervision is important</td>
<td>144</td>
<td>88.9</td>
</tr>
<tr>
<td>If trained before getting loan</td>
<td>160</td>
<td>98.8</td>
</tr>
</tbody>
</table>

**Profit Trend for Last Two Years**

Study further sought to find out the trend of profit for the last two years and according to the study findings 51.9% feel that their profit has been increasing as shown in table 5.

Table 5: Profit trend for last two years

<table>
<thead>
<tr>
<th>Profit trends</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>84</td>
<td>51.9</td>
</tr>
<tr>
<td>Decreased</td>
<td>23</td>
<td>14.2</td>
</tr>
<tr>
<td>Stayed the same</td>
<td>55</td>
<td>34.0</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Records Keeping**

When asked if they keep records most of the respondents (84%) agreed to keep records. When asked the reasons as to why they keep records most of them (66%) keep records to evaluate profit and loss. Those who do not keep records where also asked the reasons why they did not keep records and (14.2%) and (13.6%) do not keep records due to lack of knowledge and small business respectively as shown in table 6.

Table 6: Records Keeping

<table>
<thead>
<tr>
<th>Records Keeping</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes I keep records</td>
<td>136</td>
<td>84.0</td>
</tr>
<tr>
<td>Reasons for keeping records</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To evaluate profit and loss</td>
<td>107</td>
<td>66.0</td>
</tr>
<tr>
<td>For loan repayment purposes</td>
<td>39</td>
<td>24.1</td>
</tr>
<tr>
<td>Reasons for not keeping records</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of knowledge</td>
<td>23</td>
<td>14.2</td>
</tr>
<tr>
<td>Transaction too small to keep records</td>
<td>22</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Entrepreneurial, management, and technical training is very important to enterprise development. Business start-up, survival and growth training is offered by a wide array of Kenyan government agencies, private consulting firms and NGOs, including the ILO’s Start and Improve Your Business (SIYB) training (Namusonge, 1999). However, few entrepreneurs in Kenya access any sort of such training. Only 7 per cent of MSEs in the 1999 Baseline Survey had received any form of non-financial assistance in the previous four years, despite the increasing number of formal and informal organizations in the country offering all types of non-financial assistance by way of training in business skills and entrepreneurship, practical skills, technical assistance, and marketing support (National Baseline MSE Survey 1999, p. 55). Eighty-five per cent of Kenyan entrepreneurs reported not having received any training at all – 86.9 per cent of women and 83.4 per cent of men. Only 1.15 per cent of women had taken any management training, and only 1.9 per cent had received
any consultancy or counselling. The highest percentage of any type of training received by women was in marketing (7.5 per cent). The situation was not much different for men, although 4 per cent of men had accessed some counselling or consultancy services. In addition, two-thirds of MSEs do not keep any business records, 77 per cent do not have bank accounts, and 62.7 per cent said that they had no specific source of market information. Very few MSEs do any marketing of their products or services. Much work needs to be done in all of these areas, including identifying means and strategies for improving women MSE access to training in entrepreneurship and growth.

7 Model Results and Discussion

Out of 162 respondents 126 have either fully paid their loans or are currently servicing it while 36 still have arrears this was equivalent to 77.7% and 22.3% of the total sample respectively.

**Predictor Variable in the Model (Enter Method)**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Variable</th>
<th>β</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>1.439*</td>
<td>0.694</td>
<td>4.304</td>
<td>1</td>
<td>.038</td>
<td>4.216</td>
</tr>
<tr>
<td></td>
<td>Family size</td>
<td>-.180**</td>
<td>1.160</td>
<td>.024</td>
<td>1</td>
<td>.287</td>
<td>.835</td>
</tr>
<tr>
<td></td>
<td>Education status</td>
<td>1.374*</td>
<td>.730</td>
<td>3.540</td>
<td>1</td>
<td>.060</td>
<td>3.951</td>
</tr>
<tr>
<td></td>
<td>Visits</td>
<td>-.722*</td>
<td>.526</td>
<td>2.661</td>
<td>1</td>
<td>.030</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td>Purpose</td>
<td>1.36</td>
<td>.0523</td>
<td>2.186</td>
<td>1</td>
<td>.015</td>
<td>4.136</td>
</tr>
<tr>
<td></td>
<td>Amount of credit</td>
<td>-3.094**</td>
<td>2.096</td>
<td>2.180</td>
<td>1</td>
<td>.175</td>
<td>3.175</td>
</tr>
<tr>
<td></td>
<td>Credit processing</td>
<td>2.000**</td>
<td>1.477</td>
<td>1.920</td>
<td>1</td>
<td>.165</td>
<td>7.266</td>
</tr>
<tr>
<td></td>
<td>Disbursing time</td>
<td>-0.586**</td>
<td>0.464</td>
<td>1.593</td>
<td>1</td>
<td>.165</td>
<td>0.557</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-.079</td>
<td>1.328</td>
<td>.004</td>
<td>1</td>
<td>.953</td>
<td>.924</td>
</tr>
</tbody>
</table>

A Variable(s) entered on step 1: age bracket, family size, education status.

**Omnibus tests of model coefficients and summary**

<table>
<thead>
<tr>
<th>Step 2</th>
<th>Model</th>
<th>42.352</th>
<th>2</th>
<th>0.000</th>
<th>62.158</th>
<th>0.231</th>
<th>0.315</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H&amp;L test</td>
<td>5.631</td>
<td>5</td>
<td>0.125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>Model</td>
<td>42.312</td>
<td>3</td>
<td>0.000</td>
<td>51.258</td>
<td>0.287</td>
<td>0.122</td>
</tr>
<tr>
<td></td>
<td>H&amp;L test</td>
<td>9.265</td>
<td>7</td>
<td>0.125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>Model</td>
<td>42.152</td>
<td>4</td>
<td>0.000</td>
<td>54.618</td>
<td>0.241</td>
<td>0.665</td>
</tr>
<tr>
<td></td>
<td>H&amp;L test</td>
<td>4.181</td>
<td>8</td>
<td>0.425</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5</td>
<td>Model</td>
<td>52.107</td>
<td>5</td>
<td>0.000</td>
<td>34.158</td>
<td>0.357</td>
<td>0.618</td>
</tr>
<tr>
<td></td>
<td>H&amp;L test</td>
<td>1.265</td>
<td>7</td>
<td>0.721</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 6</td>
<td>Model</td>
<td>57.254</td>
<td>6</td>
<td>0.000</td>
<td>32.162</td>
<td>0.264</td>
<td>0.753</td>
</tr>
<tr>
<td></td>
<td>H&amp;L test</td>
<td>2.614</td>
<td>8</td>
<td>0.725</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * Significant at $\alpha = 0.05$; ** significant at $p = 0.2$ per cent

From the test it was revealed that age, education of the borrower, purpose of loan and number of visits by the KWFT officers were highly significant at ($\alpha = 0.05$) this implies that they have a positive impact on loan repayment. The amount of credit disbursed, credit processing period, family size and disbursement time were less statistically significant at (22 per cent level).
The variables with positive coefficients indicate that credit repayments performance increases with increase magnitude of these variables and decreases with decrease in the magnitude. On other hand, the variables with negative coefficients are those indicating a fact that credit repayment performance decreases with decrease in the magnitude of these variables and vice versa.

The positive coefficient for education indicates, a higher repayment record increases with an increased education level of the women. The rationale is that the women who had a formal education also had a commitment with keeping their records as advised by KWFT officials. Women borrowers were not quiet open with revealing how much profit they were making so profit was not included in the loan repayment predictive variables.

The findings were summarized to mean that there is a significant relationship between socio-economic and loan repayment among women loan borrowers. Thus increase or drop in socio-economic factors in the area affects loan repayment.

8 Conclusion

In summary it can be concluded that most of the women loan borrowers in Kakamega North district are aged over 40 years, have secondary education, married and with families to take care of.

The women loan borrowers are grouped into groups but most of them have 11-15 people which most of the members know each other. The group members feel responsible and monitor other members’ loan utilization. In cases of loan diversification most of the members report it to KWFT or put social sanctions to the loan diverter. Although most of the members are borrowing loan from KWFT they have other sources of funds of which majority get it from women groups. The amount they get from this other sources range from 3001-4000 Kshs. The loan borrowers feel that the loan repayment period is sufficient and the amount they get is enough. Those who have loan have full paid it and those who have arrears is less than Kshs 1000 and when asked why they fear to default loans they said that they fear losing access to loan in future.

Loan borrowers in the district got loan for purchase of agricultural inputs. Those who applied for loans did not get the amount they requested for. Although most of them used the loan borrowed for the intended purposes some used the money for other purposes like education because the amount given to them was not enough for the intended purpose. KWFT plays a role of supervision in loan utilization by conducting training on loan utilization, repayment and savings. This meant that the organization is concerned about its members finance utilization but the issue of savings is considered to be important.

Although most of the women had other sources of income most of them got the finance for farming and savings. The loan borrowers were asked their assets and most of them have assets worth less than Kshs 5,000 this could be the reason why most of them could access loans from KWFT only. Although the living condition of the respondents has improved the education has become unaffordable due to low financial income. The family annual expenditure has increased from the other years before loan accessibility which was attributed to loan given and thus meaning that they are using the amount given for personal use instead of investment this could be because they are the breadwinners to the family. Since the respondents accessed loans the demand for their products has increased and the profit over the years has improved this could be because the loan helped them improve on their products quality and also do some marketing. From the study it was also seen that women loan borrowers in Kakamega north district keep records to evaluate their lose and profit and also monitor their loan repayment trends. Those who do not keep records were because they lacked knowledge and also because they felt that their business was too small.

In general it was revealed loan has improved borrowers live generally this meant that KWFT has changed the life of women positively.
9 References


Servant Leadership and Sales Force Performance in Uganda’s Banking Sector

Kiggwe, Musa; Ngoma, Muhammed and Omagor, Charles – (Makerere University Business School, Uganda)

1 Abstract

The purpose of the study was to establish the relationship between servant leadership and sales force performance in commercial banks of Uganda. The study used a cross sectional and quantitative survey design with a sample size of 379 sales persons in the banking industry. The survey instruments were tested for reliability and all were found to possess an alpha coefficient of above 0.70. Questionnaires were then analysed using SPSS v17 and results presented based on the study objectives. Factor analysis, correlation and regression analyses were carried out using SPSS v17 to explain the relationships between servant leadership, sales force commitment and sales force performance.

The results from the study reveal that there is a positive and significant relationship between servant leadership and sales force commitment, $r = .516$. However, weak correlations were determined for sales force commitment and sales force performance, and servant leadership and sales performance at $r = .204$ and $r = .429$ respectively.

In addition, empowerment from the part of a sales manager was found to be better a predictor of sales force performance. This implies that to improve performance of bank sales people, sales managers should highly entrust their sales force with responsibilities that improve their skills as well as furthering their careers in order to improve their overall performance.

The study therefore recommends sales managers to empower their employees, ensure emotional healing and include sales force in the vision setting of the organisation in order to ensure better sales force performance.

Key words: servant leadership, commitment, sales force performance.

2 Introduction

Management expects high performance levels from the sales force because of its contribution to revenue generation (Thomas, 2005). Other line managers have often thought that sales managers possess absolute authority over the sales force and exercise it while expecting total obedience from sales people. This approach has been traditionally thought of as the most effective way to achieve high sales performance levels (Andersen, 2009). However, Stone, Russell and Patterson (2004) argue that treating salespeople as merely subordinates to be bossed around may not lead an organisation to achieve its goals. This could be as a result of some managers pursuing self interest while supervising the sales force which may ultimately have negative out comes for the organisation. These shortcomings have created a need to broaden the array of leadership styles to include servant leadership which according to Hamilton and Bean, (West, 1994) offers an integrated way of serving anyone involved with the organisation.
According to Stone et al., (2004), when a sales manager uses the servant leadership style, sales people are most likely to become servants themselves towards the achievement of organisational goals. Dubinsky, Comer, Jolson and Yammarino (1996) hold a similar view when they observe that taking care of your sales people takes care of your sales performance. This treatment creates reciprocity between the sales persons and sales manager (Stone et al. 2004) and often trickles down through the sales people in how they relate with customers (Ott and Dijk, 2005).

Ssenyonyi (2009), observes that sales managers in Uganda are often referred to as bosses, a term that depicts their level of power which they use to instil fear in order to get results from their subordinates. The concept of servant leadership in Uganda is still new based on the noticeable insufficiency of servant leaders (Odeng, 2010). In his statement, Ssenyonyi (2009) argues that we are as bad at being servant leaders as we are at being served. This implies that sales people might misunderstand the sales manager’s approach of servant leadership and thereby fail to perform according to the manager’s expectations.

Statement of the Problem
Most of the sales persons in Uganda’s banking industry have failed to perform to the expectations of their managers and have attributed this to factors beyond their control (Ntayi, Munene & Eyaa, 2009). The leadership style in use is one of the factors that have been often ignored in the management of the sales force. A new leadership style, called servant leadership is beginning to gain prominence in leadership. This study therefore sought to investigate the effect servant leadership may have on sales force performance.

Objectives of the Study
The study had the following specific objectives:
1. To investigate the relationship between servant leadership and sales force commitment.
2. To determine the relationship between sales force commitment and sales force performance.
3. To determine the relationship between servant leadership and sales force performance.

Research Hypothesis
The study was guided by the following research hypotheses:
1. Servant leadership has a positive relationship with sales force commitment.
2. Sales force commitment has a positive relationship with sales force performance.
3. Servant leadership has a positive relationship with sales force performance.

Significance of the Study
The research will help sales managers in Uganda’s banking sector appreciate the influence they will have on the performance of sales persons by adopting the servant leadership style. Findings of this study can be adopted by organisations in improving the performance of their sales persons.

The research will help add knowledge to the body of existing literature thereby contributing to the improvement of leadership. The paper will also help to provide empirical reference material for future students and researchers.

3 Literature Review
Servant Leadership and Sales Force Commitment
Servant leadership is a style that stresses the leader’s role as a guardian of the resources provided by the organisation by encouraging leaders to serve others while staying focused on achieving results.
Knowledge Management for Industrial Innovation and Development

in line with the organisation's standards and uprightness, (Marques 2006). A servant leader is a leader whose primary purpose for leading is to serve others by investing in their development and well being for the benefit of accomplishing tasks and goals for a common good (Page and Wong's definition, 2000). According to Matteson and Irving (2006), the most recent conceptualisation of servant leadership includes agapao love, humility, altruism, vision, trust, empowerment and service. Amongst the first authors to report a relationship between a leadership style and commitment were Bateman and Strasser (as cited by Drury, 2004). Mowday (as cited in Okpara and Wynn, 2008) defines organisational commitment as the relative strength of the identification of the individual and involvement with his particular organisation. Based on this definition, Okpara & Wynn (2008) identify three different dimensions of this construct to include; identification which is the strong belief in acceptance of the organisations goals and values; involvement which is the willingness to exert a considerable effort on behalf of the organisation and loyalty which is the strong intent or desire to remain with the organisation.

When the Sales force experience a good relationship with their sales managers, quality supervision, favourable working conditions and ample facilitation of their career growth, they will reciprocate with commitment to organisational goals and values (Al-Ahmadi, 2009; Boyle, 1997; Okpara & Wynn, 2008). According to Chen, Silverthorne and Hung (2006), when communication from sales managers is poor towards their sales force, lower organisational commitment is experienced. Whenever sales people view their managers as ones who participate in the daily activities as well as consultative in nature, then more commitment towards organisation activities is shown from the part of the sales force (Al-Ahmadi, 2009). Other qualities of a servant leader like clear vision, empowerment of workers and recognition as suggested (Al-Ahmadi, 2009) were seen to increase sales force commitment. Generally, a positive relationship exists between servant leadership and sales force commitment (Drury, 2004).

Sales Force Commitment and Sales Force Performance

Panagopoulos and Dimitriadis (2009) define salesperson performance as an evaluation of the salesperson's contribution to the achievement of organisational objectives. Sales force performance has been conceptualised to include both the outcome and behavioural dimensions. Sales outcomes have always been seen by performance oriented sales people as evidence to their behavioural performance and consequently a positive relationship has been found to exist between job involvement component of commitment and sales force performance (Chen et al, 2006; Silverthorne, 2004). Committed sales people are expected to extend greater efforts on the job there by having a direct effect on job performance (Silva, 2006). Al-Ahmadi (2009) concludes that sales force commitment is considered to be positively related to sales force performance.

Servant Leadership and Sales Force Performance

Addae, Parboteeah and Davis (2006) hold the view that favourable treatment from the organisation has always been seen to result into sales force performance in the form of sales people's identification with the firm's values.

This, normally, is the case because sales people always need to be credited by their supervisors for meeting objectives set by supervisors (Paparoidamis, 2006). Lin (2008) argues that most studies on empowerment have confirmed its positive relationship with sales force performance in the form of self-efficacy, enhancement of work motives amongst others. This view is further supported by the works of McDonough and Barczak as cited in Harborne and Johne (2003) that were carried out in developmental team projects. Richardson (2008) is of the view that teaching sales people in a developmental way is the most important attribute a sales manager may possess in order to meet or exceed expected performance. Therefore, when sales managers adopt the servant style of leadership, sales people are endeared to them (Stone et al, 2003) and their gratitude reciprocated in a positive way by increasing on their work performance (Bal, Chiaburu and Jansen, 2010).
However, Andersen (2009) states that each of the sales people in the organisation has a goal in life and accordingly, these goals may be different from those of the organisation in which they work. In this regard a sales manager who gives priority to serving and guiding salespeople achieve their own goals may lead to the organisational goals not being served with sincerity, which may result in negative outcomes like unproductive conflicts and abuse of resources. This view is supported by Stone et al., (2004) who observe that some aspiring servant leaders who have ulterior motives, may exploit sales people’s need to reciprocate towards a company in a subtle and coercive manner.

We therefore conceptualise the foregoing discussion as having the dependent variable as sales performance which the study seeks to determine how it is influenced by servant leadership and commitment. The direction of effect is conceptualised in the figure below:

![Diagram](source: Adapted from Al-Ahmadi, 2009; Silva, 2006; Stone, Russell & Patterson, 2003.)

## 4 Methodology

### Research Design

The researchers used a cross sectional design to capture a snap shot view of servant leadership and sales force performance of selected banks in Uganda. The research was both descriptive and analytical. It used correlation and regression analysis to explain the relationships and effect between Servant leadership and sales force commitment and the sales force performance as the dependent variable.

### Data Sources and Collection Methods

The researcher used primary and secondary sources of data. Primary data was collected from bank sales people. Secondary data was sourced from; journals that provided literature as well as support to the empirical findings of the study, newspapers articles provided evidence to the study problem. The main primary data collection method was by personal interviews, self administered questionnaires using structured questions.

### Study Population and Sampling Design

The population of study included all sales people in the all commercial banks in Uganda. According to the Uganda Online Website directory (2010), there were 22 commercial banks in Uganda at the time of the study. According to Ntayi (2005), there are about 3 032 employees carrying out personal selling in these commercial banks. Convenience sampling was used and basing on the formulae provided by Krecjie and Morgan (1970) given a population of 3 032 sales people a sample of 379 respondents is adequate within the 95 percent level of confidence, that is, $p + 0.05$

### Measurement of Variables

The variable sales force performance was measured using 33 items on a Likert scale adapted from (Fatt, 2000) under the constructs of Technical knowledge, Adaptive selling, Teamwork, Sales presentation, Sales planning, Sales support and Outcome performance. Sales force commitment
variable was measured using 11 items and a five point Likert scale adopted from Liu (2007) under the constructs of Organisational commitment and manager commitment. Servant leadership construct was measured using 33 items on a five-point Likert scale adopted from Barbuto and Wheeler (2006); Dennis and Bocarnea (2005) under the constructs of Altruism, Humility, Love, Trust, Empowerment, vision and Emotional Healing. Adaptations on the questionnaire items were made to suit the banking industry.

**Reliability and Validity**

The measurement scales adapted for this study were determined to be reliable as all the instruments had a Cronbach’s Alpha coefficient of greater than 0.5 and were thus adopted for the study.

## 5 Summary of Findings

**Sampling Characteristics of Respondents**

The results in Table 1 below highlight the respondents’ background characteristics in form of category; gender, age and Education level. Most of the respondents were in the age bracket of 20 to 29 years (61.5%) followed by the age bracket of 30 to 39 years with the least age bracket of above 50 years (0.5). Generally the average respondent was aged between 20 and 29 years (Mean = 2.41). The results further indicate that majority of the respondents were female (54.6%) while male respondents were 45.4 percent.

Findings also indicate that most respondents were degree holders (56.5%), 1.1 percent of respondents attained the Primary level of education, 5.3 percent degree level, 11.9 percent Diploma level and 4.2 percent had attained a Masters as their highest level of education. Generally, the average responded had attained a diploma as the highest education (mean = 4.39). This would imply that most sales people in commercial banks possess at least a diploma level of education to qualify as sales people.

**Relative Composition of Variables**

**Servant Leadership**

The results in Table 1 below highlight the relative composition of Servant leadership in commercial banks as seen from the sales force view. Factor analysis was used in order to determine the components of servant leadership that have more factor loadings than others.
Table 1: factor analysis for servant leadership

<table>
<thead>
<tr>
<th></th>
<th>Trustworthiness</th>
<th>visualisation</th>
<th>Emotional healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>My sales manager shows trustworthiness in me by being open to receive input from me</td>
<td>.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager communicates trust to me</td>
<td>.742</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The level of trust my sales manager places in me increases my commitment to the bank</td>
<td>.735</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager creates a culture that fosters high standards of ethics</td>
<td>.721</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager shows concern for me</td>
<td>.718</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager trusts me to keep a secret</td>
<td>.703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager has shown compassion in his or her actions toward me</td>
<td>.630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager knows I am above corruption</td>
<td>.594</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager turns over some control to me so that I may accept more responsibility</td>
<td>.559</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager empowers me with opportunities so that I develop my skills</td>
<td>.535</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager has shown that higher education or she wants to include employees' vision into the firm's goals and objectives</td>
<td>.764</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager has sought my vision regarding the bank's vision</td>
<td>.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager seeks my commitment concerning the shared vision of our bank</td>
<td>.723</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager has asked me what I think the future direction of our bank should be</td>
<td>.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager gives me the authority I need to do my job</td>
<td>.661</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager entrusts me to make decisions</td>
<td>.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager lets me make decisions with increasing responsibility</td>
<td>.621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager is good at helping me with my emotional issues</td>
<td>.787</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager is talented at helping me to heal emotionally</td>
<td>.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager is one that could help me mend my hard feelings</td>
<td>.708</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager is one I would turn to if I had a personal trauma</td>
<td>.681</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager sacrifices his/her own interests to meet my needs</td>
<td>.575</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager does everything higher education/she can to serve me</td>
<td>.546</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager puts my best interests ahead of his/her own</td>
<td>.540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My sales manager and I have written a clear and concise vision statement for our bank</td>
<td>.517</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eigen value</th>
<th>Variance %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.527</td>
<td>22.107</td>
<td>22.107</td>
</tr>
<tr>
<td>4.903</td>
<td>19.610</td>
<td>41.717</td>
</tr>
<tr>
<td>4.379</td>
<td>17.515</td>
<td>59.231</td>
</tr>
</tbody>
</table>

Table 1 above indicates that Trustworthiness, Visualisation and Emotional healing are the major components of the Servant leadership with variances of 22 percent, 20 percent and 18 percent.
respectively. With Servant leadership, specific issues that should not be overlooked if performance of bank sales people is to be improved were: showing trust in their sales force by being ready to receive input from them (.768), communicating trust to sales people (.742), creating cultures that foster high standards of ethics (.721) and trusting sales people to keep secrets (.703). With visualisation, specific issues that were emphasised if performance of sales force is to be improved were; ensuring that sales managers’ showing that they want to include the sales force’s vision into the bank’s goals and objectives (.764), seeking sales force vision regarding the bank’s vision (.762), seeking sales force’s commitment concerning the shared vision of the bank (.723). With emotional healing, specific issues that were emphasised if performance of sales force is to be improved were; being good at helping sales force with emotional issues (.787), being talented at helping sales force in healing emotionally (.762), sacrificing their own interests to meet sales force needs (.575).

**Sales Force Commitment**

The results in Table 2 below highlight the relative composition of sales force commitment in the performance of sales force in the banking sector of Uganda. Factor analysis was used in order to determine the components of sales force commitment that has more factor loadings than others.

**Table 2: Factor Analysis for Sales Force Commitment**

<table>
<thead>
<tr>
<th></th>
<th>Commitment to manager</th>
<th>Organisational commitment</th>
<th>Organisational love</th>
</tr>
</thead>
<tbody>
<tr>
<td>My manager's successes are my successes</td>
<td>.818</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When someone praises my manager, it feels like a personal compliment</td>
<td>.804</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel a sense of commitment to my manager</td>
<td>.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I talk about my manager, I usually say “we” rather than “they”</td>
<td>.685</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not feel a strong sense of belonging to the bank</td>
<td>.868</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am not emotionally attached to the bank</td>
<td>.860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not feel like part of the family at the bank</td>
<td>.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When someone praises my manager, it feels like a personal insult to me</td>
<td>.669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would be very happy to spend the rest of my career with the bank</td>
<td>.771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I really feel as if any problems the bank may have are my own</td>
<td>.730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bank has a great deal of personal meaning for me</td>
<td>.708</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigen value</td>
<td>2.694</td>
<td>2.513</td>
<td>2.030</td>
</tr>
<tr>
<td>Variance %</td>
<td>24.489</td>
<td>22.850</td>
<td>18.436</td>
</tr>
<tr>
<td>Cumulative %</td>
<td>24.489</td>
<td>47.338</td>
<td>65.795</td>
</tr>
</tbody>
</table>

Table 2 above indicates that sales force commitment to their managers is a major component of sales force commitment variable with a variance of 24 percent, followed by Organisational commitment with a variance of 23 percent and Organisational love with a variance of 18 percent. For the case of Manager commitment, specific issues that should not be overlooked if sales force performance in banks is to be improved had to do with sales force feeling; that praises to sales manager are their own compliments (.804), a sense of commitment to their sales managers (.740). With organisational commitment, specific issues that should be emphasised if performance of bank sales force is to be improved had to do with the sales force; not feeling a strong sense of belonging to the bank (.868),
not feeling emotionally attached to the bank (.860), not feeling like part of the family of the bank (.671). With Organisational love, specific issues that should be emphasised if performance of bank sales force is to be improved had to do with ensuring the sales force’s; being happy with spending the rest of their career with these banks (.771), feeling that any bank’s problems are their own (.730) and the company having a great deal of personal meaning to its sales force (.708).

**Sales Force Performance**

The results in Table 3 below highlight the relative composition of sales force performance. Factor analysis was used in order to determine those components of sales force performance that have more factor loadings than others.

**Table 3: Factor Analysis for Sales Force Performance**

<table>
<thead>
<tr>
<th></th>
<th>Sales Planning</th>
<th>Outcome performance</th>
<th>Technical knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning each sales call</td>
<td>.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning sales strategies for each customer</td>
<td>.698</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using established contacts to develop new customers</td>
<td>.664</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning coverage of assigned territory/customer responsibility</td>
<td>.648</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working out solutions to a customer's questions and objections</td>
<td>.624</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicating their sales presentation clearly and consistently</td>
<td>.623</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening attentively to identify and understand the real concerns of customers</td>
<td>.588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning daily activities</td>
<td>.582</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing after-sales service</td>
<td>.580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convincing customers that they understand their unique problems and concerns</td>
<td>.556</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussing selling strategies with people from various departments</td>
<td>.549</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producing sales on blanket contracts with long-term profitability</td>
<td></td>
<td>.722</td>
<td></td>
</tr>
<tr>
<td>Exceeding all sales targets and objectives during the year</td>
<td></td>
<td></td>
<td>.696</td>
</tr>
<tr>
<td>Identifying and selling to major accounts</td>
<td></td>
<td></td>
<td>.696</td>
</tr>
<tr>
<td>Quickly generating sales of new bank's services</td>
<td></td>
<td></td>
<td>.689</td>
</tr>
<tr>
<td>Making sales of those products with the highest profit margins</td>
<td></td>
<td></td>
<td>.682</td>
</tr>
<tr>
<td>Producing a high market share for the bank</td>
<td></td>
<td>.675</td>
<td></td>
</tr>
<tr>
<td>Generating a high level of sales revenue</td>
<td></td>
<td>.644</td>
<td></td>
</tr>
<tr>
<td>Troubleshooting application problems</td>
<td></td>
<td>.519</td>
<td></td>
</tr>
<tr>
<td>Follow-up on product use</td>
<td></td>
<td>.502</td>
<td></td>
</tr>
<tr>
<td>Analysing product use experience to identify new service ideas</td>
<td></td>
<td>.501</td>
<td></td>
</tr>
<tr>
<td>Knowing the design and specification of bank services</td>
<td></td>
<td></td>
<td>.822</td>
</tr>
<tr>
<td>Knowing the application and functions of bank services</td>
<td></td>
<td></td>
<td>.796</td>
</tr>
</tbody>
</table>

| Eigen Value | 5.528 | 5.133 | 2.308 |
| Variance %  | 21.261 | 19.741 | 8.878 |
| Cumulative % | 21.261 | 41.002 | 49.880 |
Table 3 above indicates that Sales planning is the major component of sales force performance variable with a variance of 21 percent, followed by Outcome performance with a variance of 20% and Technical knowledge with a variance of 9 percent. With Sales Planning, specific issues that should be emphasised include: planning each sales call (.707), planning sales strategies for each customer (.698), using established contacts to develop new customers (.664), working out solutions to a customer's questions and objections (.624), listening attentively to identify and understand the real concerns of customers. With outcome performance, specific issues that should be given priority include: producing sales on blanket contracts with long-term profitability (.722), exceeding all sales targets and objectives during the year (.696), identifying and selling to major accounts (.696), quickly generating sales of new bank's services (.689), making sales of those products with the highest profit margins (.682), producing a high market share for the bank (.675), follow up on product use (.502), analysing product use experience to identify new service ideas (.501). With technical knowledge, specific issues that should not be overlooked include, knowing the design and specification of bank services (.822) as well as knowing the application and functions of bank services (.796).

**Relationship between Servant Leadership, Sales Force Commitment and Sales Force Performance**

All the research objectives involved establishing relationships between the study variables. In order to achieve this, the Pearson (r) correlation coefficient was computed given the interval nature of the data and the need to test the direction and strength of this relationship. Table 4 below presents the correlation analysis results.

Table 4: Pearson (r) Correlation Coefficient of the Variables

<table>
<thead>
<tr>
<th></th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager commitment-10</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales force commitment-11</td>
<td>.849**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical knowledge-12</td>
<td>.368**</td>
<td>.321**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptive selling-13</td>
<td>.333**</td>
<td>.271**</td>
<td>.525**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork-14</td>
<td>.295**</td>
<td>.229**</td>
<td>.382**</td>
<td>.616**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales presentation-15</td>
<td>.195**</td>
<td>.115*</td>
<td>.346**</td>
<td>.529**</td>
<td>.609**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales planning-16</td>
<td>.183**</td>
<td>.095</td>
<td>.283**</td>
<td>.462**</td>
<td>.400**</td>
<td>.547**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales support-17</td>
<td>.181**</td>
<td>.104*</td>
<td>.299**</td>
<td>.418**</td>
<td>.442**</td>
<td>.573**</td>
<td>.556**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome performance-18</td>
<td>.148**</td>
<td>.095</td>
<td>.325**</td>
<td>.400**</td>
<td>.362**</td>
<td>.533**</td>
<td>.445**</td>
<td>.615**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Sales force Performance-19</td>
<td>.296**</td>
<td>.204**</td>
<td>.469**</td>
<td>.763**</td>
<td>.758**</td>
<td>.826**</td>
<td>.748**</td>
<td>.773**</td>
<td>.714**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Results from Table 4 above indicate that Servant leadership and Sales force commitment positively relate to sales force performance. This implies that in order to improve the performance of bank sales force, sales managers should improve their servant leadership to ensure sales force commitment thereby improving overall sales force performance.
Servant Leadership and Sales Force Commitment

The results indicated that servant leadership and sales force commitment are positively significantly correlated \( (r = .516**, p<.01) \). It was also observed that the elements of servant leadership, that is, altruism, humility, love, trust, empowerment, vision and emotional healing are positively significantly correlated to sales force commitment \( (r = .361**, p<.01), (r = .378**, p<.01), (r = .393**, p<.01), (r = .391**, p<.01), (r = .441**, p<.01), (r = .452**, p<.01) \) and \( (r = .516**, p<.01) \) respectively. This implies that when sales managers work at improving their altruism, humility, love, trust, empowerment, vision and emotional healing towards their sales people then the sales force commitment will improve. This confirms \( H_1 \) which states that Servant leadership has a positive effect on sales force commitment. Our finding is supported by Drury (2004) and Al- Ahmadi (2009) who also determined the existence of a positive relationship.

Sales Force Commitment and Sales Force Performance

The results indicated that sales force commitment and sales force performance are positively significantly correlated \( (r = .204**, p<.01) \). It was also observed that manager commitment was positively significantly correlated \( (r = .296**, p<.01) \). This implies that when sales people are committed to their managers and organisation then their performance will improve. These results support \( H_2 \): which states that Sales force commitment has a positive relationship with sales force performance. Silva (2006) held a similar viewpoint while arguing that committed sales people are expected to extend greater efforts on their jobs which have a direct effect on sales force performance.

Servant Leadership and Sales Force Performance

The results indicated that servant leadership and sales force performance were significantly positively correlated \( (r = .429**, p<.01) \). It was also observed that the elements of servant leadership, that is, altruism, humility, love, trust, empowerment, vision and emotional healing are positively related to sales force performance; \( (r = .374**, p<.01), (r = .269**, p<.01), (r = .253**, p<.01), (r = .340**, p<.01), (r = .418**, p<.01), (r = .424**, p<.01) \) and \( (r = .255**, p<.01) \) respectively. The results imply that when sales managers show altruism, humility, love, trust, empowerment, vision and emotional healing towards their sales force then their performance will improve. This confirms \( H_3 \) which states that Servant leadership has a positive relationship with sales force performance. This finding is supported by Addae et al (2006) who argue that favourable treatment from the organisation has always been seen to result into high sales force performance. Richardson (2008) further supported this when higher education said that teaching sales people in a developmental way is the most important attribute a sales manager may possess in order to meet or exceed expected performance.

The Effect Servant Leadership and Sales Force Commitment on Sales Force Performance

In the table below, the researcher presents the magnitude of the Regression model of the components of Servant Leadership to the Performance Sales people in commercial banks. This was done to determine the better predictor component as well as direction as a response to the third objective which was intending to examine the effect servant leadership has on Sales force performance. Table 8 below presents the regression analysis results.
Table 5: Regression Analysis of Components of Variables

<table>
<thead>
<tr>
<th>Component</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.789</td>
<td>.119</td>
<td>23.462</td>
<td>.000</td>
</tr>
<tr>
<td>Altruism</td>
<td>9.892E-02</td>
<td>.030</td>
<td>.197</td>
<td>3.286</td>
</tr>
<tr>
<td>Humility</td>
<td>-3.71E-02</td>
<td>.037</td>
<td>-.067</td>
<td>-1.002</td>
</tr>
<tr>
<td>Love</td>
<td>-5.07E-02</td>
<td>.037</td>
<td>-.090</td>
<td>-1.373</td>
</tr>
<tr>
<td>Empowerment</td>
<td>.106</td>
<td>.039</td>
<td>.201</td>
<td>2.685</td>
</tr>
<tr>
<td>Vision</td>
<td>.105</td>
<td>.034</td>
<td>.214</td>
<td>3.054</td>
</tr>
<tr>
<td>Emotional healing</td>
<td>-2.26E-02</td>
<td>.030</td>
<td>-.044</td>
<td>-7.745</td>
</tr>
<tr>
<td>Organisational Commitment</td>
<td>-7.95E-02</td>
<td>.033</td>
<td>-.113</td>
<td>-2.401</td>
</tr>
<tr>
<td>Manager Commitment</td>
<td>4.648E-02</td>
<td>.030</td>
<td>.086</td>
<td>1.535</td>
</tr>
</tbody>
</table>

Dependent Variable: Sales force Performance

<table>
<thead>
<tr>
<th>R Square</th>
<th>.253</th>
<th>F Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R Square</td>
<td>0.235</td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

The above table shows that the components of Servant leadership, that is, Altruism, Empowerment as well as Vision can significantly predict Sales force Performance. However Empowerment (Beta = .106, sig. < .001) is a better predictor of Performance of bank sales people followed by Vision (Beta = .105, sig. <.002) and lastly Altruism (Beta = 9.892E-02, sig. <.001). Amongst the components of Sales force commitment only commitment to the organisation (Beta = -7.95E-02, sig <017) can significantly predict sales force performance. This implies that sales force management of commercial banks should ensure that they do everything they can to serve their sales people as well as putting sales peoples interests ahead of their own. Sales managers should also entrust their sales people with decisions of increasing responsibility such that they may develop their skills. This is coupled with incorporating their sales force visions into the bank’s goals and objectives and thus seeking commitment concerning the shared vision of their respective banks. Commitment to the organisation only leads to the reduction of performance of sales people though it is not significant (Beta = -.080, sig. <112). In line with the above, once sales people have a negative sense of commitment to their organisation that is not having a strong sense of belonging towards the bank then their performance will increase. The regression model was also valid (sig. <.000) with adjusted R Square of 0.235.

### 6 Conclusion and Recommendations

The study has established that there is a significant positive relationship between servant leadership, sales force commitment and sales force performance. There is therefore a case for the adoption of the servant leadership style in the management of the sales force.

### Recommendations

The use of the servant leadership style should be vigorously encouraged as it has a positive influence on performance. Sales supervisors are therefore encouraged to go beyond the call of duty to meet sales peoples’ needs. Sales managers should also empower sales people by giving them authority they need, entrusting them with increasing responsibilities so as to enhance their skills.

Managers should build sales force commitment towards the organisation through ensuring that their successes are conceived as sales people’s successes, as well as praising them using personal compliments.
Servant leadership was further found to be a predictor of sales forces commitment; therefore sales managers are urged to ensure that the sales people are emotionally healed and or have their social needs/ issues attended to.

Limitations of the Study

The study focused on sales people in commercial banks of Uganda. This limits the generalisation of the findings to other industries. However, given the large scope of commercial banks, the study gives a picture of the situation in Uganda on which other studies can build on.

Areas for Further Research

The study concentrated on servant leadership, sales force commitment and sales force performance in the banking sector. There is need to extend the research agenda to cover other countries and industries/ sectors.

7 References


Movers in Achieving Industrial Innovation Sustainability: A Critical Review

1Kamau, Alice Wangui and 2Katuku, Alex – (1Karatina University College, Kenya and 2The Kenya Institute of Management, Kenya)

1 Abstract
Knowledge creation and innovation generation has reached a remarkable height and this revolution is not going to change in the near future; Knowledge is an increasingly critical factor in shaping economic life. The value of Knowledge Management relates directly to the effectiveness with which the managed knowledge enables the members of the organisation to deal with today’s situations and effectively envision and create their future.

Higher institutions of learning are seen as the producers of new knowledge hence are supposed to provide a platform of innovations and improvement in the society; therefore there is need for collaboration of all the concerned (movers) in creation, sharing and dissemination of knowledge which are the main activities in knowledge management. This calls for cooperation of movers of the industry and higher education to work together in creating university – industry linkages in order to generate more innovations within the economic development processes.

This paper seeks to find out what mechanisms are in place to facilitate knowledge management and what roles the various stakeholders in both the industries and higher institutions play in managing knowledge for industrial innovations. To achieve these, the study seeks contributions from the academic literature including published articles and studies in referred journals that focuses on KM in institutions of learning and organisations.

Keywords: Knowledge management, knowledge creation, knowledge sharing, dissemination, knowledge application

2 Introduction
The paper begins by explaining the concept of knowledge and knowledge management. Knowledge is considered a resource and knowledge management is meant to create, share and ensure applicability of this knowledge. Knowledge is not owned by any one group in an organisation, nor by any one profession or industry. Knowledge management requires a holistic and multidisciplinary approach to management processes and an understanding of the dimensions of knowledge work. It is meant to achieve breakthrough in business performance through the synergy of people, processes, and technology. Higher institutions of learning have been a source of knowledge for the industries thus organisations and universities need to apply thinking strategies to their surroundings, to increase collaborations and knowledge sharing while ensuring that sufficient mutual benefits can be derived. Lastly the paper explores the various types of enablers of knowledge management and the roles of innovation ecosystem.
3 Knowledge

Knowledge is recognised not only as the most important resource in organisations (Liao et al., 2004) but as one of the primary sources of competitive advantage (Stewart, 1996). Knowledge is critical to the long term sustainability and success of any organisation (Nonaka and Takeuchi, 1995).

The most popular ways of categorising knowledge are tacit and explicit knowledge; Polanyi (1966) was the first to introduce these concepts then further explained by Nonaka and Takeuchi (1995). The distinction between tacit and explicit knowledge is critical in appreciating the scope of knowledge management and how it differs from information and data management. Nonaka (1995) refers to the spiral of knowledge where new knowledge always begins with the personal; from Tacit to Tacit; When one individual shares tacit knowledge with another in face-to-face contact; from Explicit to Explicit; When an individual combines discrete pieces of explicit knowledge into a new whole, such as a finance manager collecting and synthesizing information and opinions from different parts of the organisation then putting this into a financial report; From Tacit to Explicit; this extends the organisation's knowledge base by codifying experience, insight, or judgement into a form which can be reused by others and finally from Explicit to Tacit; When staff begin to internalize new or shared explicit knowledge and then use it to broaden, extend, and rethink their own tacit knowledge.

Much of the expertise is made explicit by capturing and coding knowledge using software, hardware and descriptive processes. Ramanujan and Kesh (2004) assert that tacit knowledge can only be exploited by effective communication and sharing. Since knowledge is socially constructed, contextual and situated within different environments, it is important to identify what is considered as knowledge within a specific context in order to study knowledge sharing (Ipe, 2003 and Marouf, 2005).

Kukkonen (2004) argues that much of the innovation created and accumulated in a firm is based on tacit knowledge. Knowledge management practices aim to draw out the tacit knowledge people have, what they carry around with them, what they observe and learn from experience, rather than what is usually explicitly stated.

Knowledge has also been classified as advantaged knowledge, which can be described as the knowledge that can provide competitive advantage; base knowledge is integral to an organisation, providing it with short-term advantages (best practices); and trivial knowledge as knowledge that has no major impact on the organisation (Clarke, 1998). Intellectual capital is another term for knowledge about which Ulrich (1998) defines intellectual capital as the competence of an individual and the commitment of the individual to contribute to the organisation’s goals.

4 Knowledge Management

Knowledge management is a new branch of management that has emerged, (Hicks et al, 2006). Knowledge management is meant to achieve breakthrough in business performance through the synergy of people, processes, and technology. It serves as the source and stock of knowledge and the flow of knowledge. This includes knowledge creation, sharing and application to create and or sustain organisational value and competitive advantage (Liew, 2007).

According to Wickramasinghe (2003), in its broadest application KM refers to how firms acquire, apply and store their own intellectual capital. From a theoretical standpoint, Wickramasinghe et al (2003) argue, KM refer to the information systems adopted and designed, which efficiently and effectively leverage the collective experience and knowledge of employees to support information processing needs, as well as enabling and facilitating sense-making activities of knowledge workers. Ramanujan and Kesh (2004), defined Knowledge management as an organisation's ability to gather, organise, share and analyse the knowledge of individuals and groups across the institution in ways that directly impact performance. Efficient knowledge management is made up providing accurate information to the right people exactly when they require.
Hicks et al (2006) articulate that knowledge management has three fundamental concepts, which include: data, information and knowledge. They explain that data is a set of records and represents a fact or statement of event and information is formed when we attach semantics to the data; when intelligence is attached to the information, then knowledge is created (Govil, 2007). The relationship between data, information and knowledge is what is referred to as Knowledge Hierarchy. In knowledge hierarchy data is transformed into information, and information into knowledge. Knowledge management is used to describe a large variety of actions ranging from database management to organisational learning in the business world (Ruggles, 1998). Davenport & Prusak (1998), theorize four processes in knowledge management based on the life cycle of knowledge within firms, including knowledge generation, knowledge codification, knowledge sharing, and knowledge application.

5 Knowledge Management Practices

Knowledge creation, sharing and dissemination are the main activities in knowledge management. Being part of KM process (Kim and King, 2004), Knowledge sharing (KS) is the exchange of experience, events, thoughts or understanding of anything. In general, people expectations from knowledge sharing are to gain more insights and understanding about concepts or practical applications, thereby improving learning and expertise.

Knowledge Creation

According to Diem (2007), the creation of new knowledge or technology is also known as discovery or invention. Research is the scholarly work needed to arrive at finding new things or new knowledge. This is the process of creating value for knowledge. Critical success factors for research are quality, pertinence to societal or business needs or economic growth, and sustainability. Sustainability is determined by the research’s ability to survive and grow. Sustainability can be achieved if the research’s results or innovations can be used effectively or profitably. In order to arrive at these critical success factors, the university research community should align their interests with the strategic objectives of industries and government in order to tackle societal and business challenges and get funding and resources from them (Diem 2007).

These resources can also help universities improve their infrastructure. By working closely with industries, the governance and processes can be more realistic and efficient. Research is needed to use existing knowledge and to create new knowledge. It is the means for maintaining intellectual leadership. Knowledge management is the solution for sustaining a competitive edge in a knowledge economy.

Higher education plays a major role in all these processes by preparing and providing the required human capacity through education, creating and disseminating knowledge to society, and directly contributing to economic development. Knowledge cycle consists of knowledge acquisition, assimilation and development. Knowledge development may lead to creating or discovering new knowledge/technology or creating new value by applying knowledge/technology to societal or business challenges.

Knowledge Sharing

Knowledge sharing, as a dimension of knowledge management, is defined as the provision or receipt of task information, know-how and feedback regarding a product or procedure (Cummings 2004). KS is the exchange of experience, events, thoughts or understanding of anything. In general, people expectations from knowledge sharing are to gain more insights and understanding about concepts or practical applications, thereby improving learning and expertise. Knowledge sharing can also be seen as a social interaction culture, involving the exchange of employees’ knowledge, experiences, and skills through the whole department or organisation. Knowledge sharing comprises a set of shared understandings related to providing employees access to relevant information and
building and using knowledge networks within organisations (Hogel et al, 2003). It is the voluntary dissemination of acquired skills and experience to the rest of the organisation (Ipe, 2003).

At the individual level, knowledge sharing is referred to as the talking to colleagues to help one get something done better, more quickly, or more efficiently (Lin, 2007). Sharing of knowledge at the individual level is the most critical to an organisation, even though it may exist at other levels of an organisation that include team and organisational levels (Lukas et al, 1996). Individuals can realise synergistic results greater than those achievable individually by sharing their knowledge (Cordoba and Isabel 2004).

Moreover, knowledge sharing occurs not only at the individual level, but at the organisational level as well (Lin 2007). For an organisation, knowledge sharing is capturing, organising, and transferring experience-based knowledge that resides within the organisation and making that knowledge available to others in the organisation (Lin, 2007). A firm can successfully achieve promotion of knowledge sharing culture not only by directly incorporating knowledge in its business strategy, but also by changing employee attitudes and behaviours to promote willingness and consistent knowledge sharing (Connelly and Kelloway, 2003; Lin and Lee, 2004).

Sharing and dissemination of knowledge is considered as the most important in KM process in the organisation. Knowledge dissemination and responsiveness to knowledge are cited repeatedly as the most effective way to a competitive advantage (Oxbrow, 2000; McEvily, Das and McCabe, 2000).

6 Knowledge Application

Innovation is described as knowledge development: in particular the application of knowledge or technologies to business or societal challenges, or the intersection between technologies and business or societal challenges, (Global Innovation Outlook). Innovation has become the battle cry for many countries looking for job creation and better living conditions. The knowledge cycle consists of three pillars: knowledge/technology acquisition, the knowledge/technology assimilation, and knowledge development; the knowledge development stage is where value is created, in other words, innovation.

7 Enablers of Knowledge Management

Davenport et al, (1998), note that Knowledge management success factors may be links to economic performance or industry value; a technical and organisational infrastructure; a standard, flexible knowledge structure; a knowledge-friendly culture; a clear purpose and language; a change in motivational practices; multiple channels for knowledge transfer and senior management support. Maccoby, (2003), echoes the same by noting that social and cultural, in particular are worth considering. Knowledge is the key source of competitive advantage; organisations stand to lose when their use of incentives does not take organisational culture or personal motivational factors into account.

Gammelgaard (2007) argues that individuals are disposed to hoard the knowledge they possess. And when people leave, they take with them valuable knowledge, (Hildreth et al, 1999). To counteract this, leadership factor is very important. Ramirez (2007), states that management needs to support knowledge sharing in the organisation and provide visible support to motivate the employees to share their knowledge.

Another knowledge management factor or enabler is interdependence of tacit and explicit knowledge. Kukkonen (2004) argues that much of the innovation created and accumulated in a firm is actually based on tacit knowledge. Malhotra (2001), states that the dominant conception of Information System (IS) based organisational knowledge system is constrained by the very nature of the knowledge creation process: it ignores the tacit and explicit dimensions of knowledge creation. Malhotra further argues that knowledge resides in the user and not in the collection of information and it is how the user reacts to a collection of information that matters.
Technology

Technology plays a key role in the trend towards knowledge management. Today, information technologies support knowledge management and broad sharing of information and are good examples of effective knowledge management tools, (Hussain et al 2004). Information Communication Technology provides a wide spectrum of tools and means to facilitate value creation. Diemo, (2007) argues that the Intellectual Capital Management (ICM) system is an effective means to preserve and disseminate the experiences and memory of an enterprise. There are a number of collaborative software tools available on the market that can help mobilise collective wisdom and knowledge to improve business performance.

According to Hussain et al (2004), when facilitating knowledge management initiatives, information technology environments such as intranets can be utilised to establish a virtual meeting place where communities of practice can engage in dialogue and collaboration. Higher education further notes that actions such as information creation, information seeking, and information interpretation can successfully be performed in these environments. To facilitate this, intranets must be designed to support not only the informational aspects but also include people by making salient networks of users with similar interests and allow these to communicate and collaborate. Stenmark (2002) has suggested a multi-perspective view of intranet, a technology that helps in creating an effective knowledge management environment, which includes Information perspective, Awareness perspective and Communication perspective.

Mohamed (2006) and Hislop (2002), through researches have identified Information technology as a variable that could impact knowledge sharing. Technology is one of the important pillars of knowledge management (Maccoby 2003). Haldin-Herrgard (2000) maintain that a great deal can be done through modern IT to diffuse explicit knowledge. It is also becoming easier nowadays to capture tacit knowledge with the aid of retrieval technologies (Kumar, 2005).

Strategy

The main purpose for knowledge management strategy is to create an environment for leveraging the organisation’s intellectual property into a collaborative platform, making this knowledge actionable. Knowledge management is about action, not just about collection and consolidation. It is about leveraging what the organisation knows. Forming a knowledge strategy is straightforward. The first step is to develop sophisticated scenarios for current and future competitive environments. The next step is to describe ideal successful companies with respect to the future scenarios. A vital characteristic of this step is evaluation of the advantages and base knowledge required in these successful organisations (Clarke, 1998).

Culture

Knowledge management, at its core, has a strong human component. An organisation’s knowledge management strategy cannot be successful unless the organisation has developed a trusting knowledge culture that emphasises the role and value of knowledge in day-to-day business decisions and enterprises. The culture must be geared towards rewarding innovation, learning, experimentation, scrutiny and reflection (Allee, 1997).

Pollard (2005) argues that the challenges faced today in getting people to share what they know and to collaborate effectively are not caused or cured by technologies, but are cultural impediments. It is extremely difficult to change people’s behaviours so the solutions need to accommodate these behaviours, and these cultures, rather than trying to fix them.

For an organisation to improve its performance, it requires a learning culture (Kumar 2005). Joo 2007, argues that learning culture is said to exist in an environment where teamwork, collaboration, creativity, and knowledge processes exist that have a collective meaning and value. Developing a learning culture could help in gathering, organising, sharing, and analysing the knowledge of
individuals and groups across an institution in ways that directly affect its performance (Kumar 2005). In higher educational institutions, in particular, learning culture is needed for the institutions to create and disseminate knowledge that is necessary for the development of such institutions.

**Innovation Ecosystem**

Knowledge management demands that knowledge should be obtained, produced, shared, regulated and leveraged by a steady conglomeration of individuals, processes and IT (Benbya and Belbaly 2005). In the current higher learning institutions, research is the key for knowledge creation and knowledge dissemination. The higher learning institutions are no longer just providing knowledge to the students, but also manage and collaborate the existing knowledge for future reference. Higher education institutions have significant opportunities to apply knowledge management practices to support every part of their mission, explains Kidwell, et al (2001).

Diem Ho (2007) notes that Higher Education is a part of the innovation eco-system. Its roles consist of, disseminating knowledge and creating new knowledge; to be successful, the education process should generate value of the knowledge disseminated or created. This therefore introduces the third element; the application of knowledge. The end products of universities are knowledge and the knowledge workers that society and businesses need. As a result, the education system should be in tune with economic development, in particular, local economic development. This can be done through education and research. Diem (2007) further notes that in education consideration should be in the following:

1. **Employability:** this relates to ensuring that the education programme meets the needs of the economy. Collaboration with industry and businesses are highly recommended to gain real life work experience and industry insight. Internship and traineeship should be part of degree requirements.
2. **Versatility:** as innovation requires a fusion of knowledge in both technology and business, university programmes should allow students to have a wide spectrum of disciplines to prepare for innovation. Jobs are now more multidisciplinary.
3. **Adaptability:** as technology and its environment change so quickly, students should prepare to expect the unexpected. As a result, the education content should also be reconsidered: more framework and methodology. Different content can be filled in as required.

Diem (2007) further argues that in research the following should be considered:

1. **Quality:** In a competitive environment, selection of subjects for research at universities has to be based on practical reasons, avoiding me-too research. Universities should concentrate on research areas where they excel and focus on what they do better than others rather than on what they do best.
2. **Pertinence:** Be sure that the research outcomes can provide value to some end-user: government or business. Users of research or innovations eventually will be the ones who fund future research. Collaborations with government or business are essential not only for research but also for student training as well. Applied research should be aligned with the strategic objectives of government or industries to assure its pertinence to business or society.
3. **Sustainability:** if research cannot create value for some end-users or sponsors, it cannot be sustained.

The creation of technological, economical and social innovation requires new types of actions and collaboration from institutions of higher education as well as from their management, teachers, researchers and students. Co-creation of innovations is both the process and outcome. It requires action and application in context (Kari, 2008).

Schwartz (2004) indicates that if firms and universities are observant and able to leverage research and development and convert more meaningful arbitrary occurrences into opportunities, this might change an economy and the world. Firms and universities need to apply thinking
strategies to their surroundings, to increase collaborations and knowledge sharing while ensuring that sufficient mutual benefits can be derived.

It is very much essential to apply knowledge on practical ground. For that, collaboration of universities and industrial firms is a must. Globalisation demands that our society to move faster, work smarter and take more risks than at any time in our history.

Universities can transfer knowledge to private parties under the intellectual property (IP) regime, utilising patent system, design law, copy right law, among others. Licensing, venture start-ups, joint ventures and contract research are typical schemes that use IP systems. Universities should undertake such transactions to foster commercialisation of technologies from universities through a fair and transparent process that is accountable to the taxpayer (Watanabe, 2003).

8 Conclusion

Knowledge management involves activities such as knowledge creation, sharing and knowledge application. These activities are undertaken in collaboration between the higher institutions of learning and organisations. An environment focusing on an enabling culture, technology and knowledge strategies is required. The paper has focused on various roles that higher institution of learning play in knowledge management; however detailed roles of other stakeholders that make up the innovation eco system need to be addressed.

9 References


Jacques in Prichard et al (2007), Nine drivers of knowledge transfer between universities and industry Re&D
Knowledge Management for Industrial Innovation and Development

Kari L. Peter van der Sijde, Matti L. Jaakko T. (2007) Higher Education Institutions And Innovation In The
Knowledge Society Publisher Rectors’ Conference of Finnish Universities of Applied Sciences.

Performance Improvement, 44(9).


Lukas, B., Hult, G. and Ferrell, O. (1996). A theoretic perspective of the antecedents and consequences of
organisational learning in marketing channels. Journal of Business Research, 36(3), 233-244.

2009 Second International Symposium on Knowledge Acquisition and Modeling, Huazhong, China.


financial institution. Unpublished doctoral dissertation, University of Pittsburgh


technology: can they work in perfect harmony?, Journal of Knowledge Management, 10(3), 103

Norma V.L. (2005), University-industry collaboration in Mexico:


New York, NY.


of the 35th Hawaii International Conference On Systems Science.


Watanabe,T. (2003). The effects of university-industry technology transfers on the incorporation of Japanese
national universities; Proceedings of the 12th International Conference on Management of Technology, 13 15 Nancy, France. pp. 91-101
Management and Leadership Competencies of Agricultural Extension Agents in Kenya: Implications for Curriculum Development

Lopokoiyit, Mary C.; Onyango, Christopher(PhD); and Kibett Joash K.(PhD) – (Egerton University, Kenya)

1 Abstract

The revitalisation of the agricultural industry is a key economic growth strategy in the Vision 2030. To achieve this, the Agricultural Sector Development Strategy (ASDS) adopted a paradigm shift from a top-bottom and centralised extension service to a decentralised and pluralistic extension service. Staff training to undertake new tasks and responsibilities is critical. On this premise, the study examined the management and leadership competencies of 440 staff in the public and private agricultural extension service sector and explored differences in competency requirements between Front line Extension Worker (FEW) and Subject Matter Specialists (SMS). A cross-sectional survey was used and training needs were determined and prioritised using Borich’s Needs Discrepancy Model (BNMD) and a Mean Weighted Discrepancy Score (MWDS). The management and leadership competencies with the highest training need were; Motivating employees, Stress management, Managing conflict, Strategic planning, Mentoring/coaching employees and Employee appraisal and counselling. There were no significant differences between the training needs of extension agents in the sectors and only managing finances was significantly different between SMS and FEW. The high MWDS obtained for management and leadership competencies form the basis for designing relevant in-service courses and warrant their inclusion in agricultural programmes at the undergraduate and postgraduate levels.

Key words: Agricultural extension, Competencies, Higher education, Leadership, Management

2 Introduction and Background to the Study

Agriculture, the mainstay of Kenya’s economy, currently contributes 26 percent of the GDP directly and another 25 percent indirectly. The sector also accounts for 65 percent of Kenya’s total exports and provides more than 18 percent of formal employment. More than 70 percent of informal employment is in the rural areas (GoK, 2010). The role of the agricultural sector in Kenya is of great importance because it directly influences the country’s economic growth and will continue to feature prominently in the country’s development agenda as a basis for food security, employment creation and foreign exchange generation (GoK, 2002). Vision 2030 has identified agriculture as one of the key sectors to deliver the 10 percent annual economic growth rate envisaged under the economic pillar. To achieve this growth, transforming smallholder agriculture from subsistence to an innovative, commercially oriented and modern agricultural sector is critical (GOK, 2010). The development of an efficient agricultural sector stimulates the national and rural economy by improving incomes, food security and living standards and this is the role of the national extension
system. As a means of appropriate technology generation and dissemination to the farming community, agricultural extension serves the role of facilitating this contribution.

This study was designed to identify management and leadership competencies needs of agricultural extension personnel in Kenya in light of changing trends in agriculture production, extension strategies and environmental concerns that have implications on the way extension workers are trained. Identifying these needs is important due to the declining employment opportunities in the public sector and forms a basis for reviewing the curricula to ensure that training is relevant, demand-driven and responsive to the dynamic agricultural sector. This will also reassure stakeholders that the knowledge, skill and attitudes that graduates learn will be meaningful to their future employment goals.

The Changing Context of Agricultural Extension Service in Kenya

The extension system through the late 1990s has been plagued with poor management and diminishing funding resulting in inefficiency, ineffectiveness and non-delivery of services (Evenson and Mwabu, 2001; Republic of Kenya, 2001) resulting from the changing internal and external environments and the structural adjustment programme instituted by the World Bank and International Monetary Fund (IMF) had a major impact on the organisational, institutional and manpower aspects of the national agricultural extension service. These factors led to a decline in agricultural growth from 4.6 percent per annum in 1964-1973 to 0.4 percent in 1990-1995 and a merger 1.1 percent in 1999-2000 (Republic of Kenya, 2001). To reverse and revamp the negative trend in extension service delivery, the Ministry of Agriculture and Rural Development (MORAD) formulated the National Agricultural Extension Policy (NAEP) implemented under the National Agriculture and Livestock Extension Programme (NALEP). This led to a pluralistic extension model in which the Government takes the role of a facilitator for many other groups involved in extension (McMillan, Husein and Sanders, 2001; Republic of Kenya, 2000; Republic of Kenya, 2001). The extension policy in Kenya was redefined further through the Strategy for Revitalising Agriculture (SRA) as part of the Economic Recovery Strategy for Wealth and Employment Creation (ERSW&EC) with the objective of modernising agriculture, improving research and extension services, promoting partnerships, and accountability for efficient extension service. The Agricultural Sector Development Strategy (GOK, 2010) aims to achieve an average growth rate of 7 percent per year over the next 5 years. To deliver the vision of the agricultural sector, institutional reforms and better coordination will be critical.

The move toward privatisation, demand-driven, grass-root, bottom-up approaches and decentralisation has focused planning, implementation and coordination of extension activities at the district, divisional level and local level initiatives. The district is the Government's development planning unit where funds are disbursed and managed by the District Agricultural Officer while the division is the implementation level (Republic of Kenya, 2001; MORAD, 2000). The district agricultural officer provides technical backup and staff training through subject matter specialists to the divisional level who in-turn train Frontline Extension Staff (FEW) and Technical Assistants (TA). The divisional level staff provides individual farm visits, community and farmer groups and assist in the development of Focal Area Development Plans (FADP) and Farm Specific Action Plans (FSAP), organising field days and facilitate participatory learning, consultation and technical training (MORAD, 2000). The responsibility for extension service therefore lies with the district and more heavily on divisional teams. The decentralisation of extension further emphasises the need for extension staff to have additional skills, in technical areas, communication skills, written, oral, computer and internet use skills, leadership, management and personal skills at all management levels. Buford, Bedeian, and Lindner, (1995) found that agricultural agents need to possess relevant managerial behaviour dimensions that include oral communication, planning/ organising, leadership, decision making/judgment, initiative, objectivity, development of co-workers, perception, sensitivity, management control, collaborativeness, written communication, behavioural flexibility, organisational sensitivity, and assertiveness. This study therefore sought to identify and prioritise management training areas for up scaling into the undergraduate agricultural
curricula and contribute toward closing the gap between the actual and needed curriculum and between formal training and the world of work.

**Objectives and Hypotheses of the Study**

The purpose of this study was to identify the management and leadership training needs of extension agents in public and private extension organisations in Kenya. The following hypotheses were tested:

1. Compare training need differences in the professional competencies on service and staff category.
2. There is no statistically significant difference in the training needs of professional competencies on service and staff category.

**Population and Sampling**

The study involved multistage sampling, first through purposive sampling of nine districts and private extension organisations and secondly, of 5 100 staff in the districts under the ministry of Agriculture (MoA) and the Ministry of Livestock Development (MoLDF) and private extension organisations. A total of 440 extension agents were sampled; 325 from the public sector and 115 from the private extension service. Data on training needs was obtained using a questionnaire designed to solicit demographic data and rating scales on the importance, knowledge and opportunity to use ratings. The data collected was analysed using descriptive and inferential statistics.

The following counties were used in the study and formed the accessible population; Machakos, Bungoma, Trans-Nzoia, Uasin-Gishu, Elgeyo-Maraket, and Kilifi. The distribution of respondents across the provinces is shown in Table 1. These districts have different agro-ecological zones and diverse agricultural activities and ensured that the study captured the different challenges facing extension workers. Extension workers in the study had a minimum diploma in an agricultural discipline.

**Table 1: Distribution of Respondents by Province**

<table>
<thead>
<tr>
<th>Location of Study</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rift Valley Province</td>
<td>153</td>
<td>34.8</td>
</tr>
<tr>
<td>Coast Province</td>
<td>89</td>
<td>20.2</td>
</tr>
<tr>
<td>Eastern Province</td>
<td>69</td>
<td>15.7</td>
</tr>
<tr>
<td>Western Province</td>
<td>129</td>
<td>29.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>440</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Instrumentation and Research Model**

The study used a questionnaire that was designed first to collect demographic data of the respondents and the second section of the questionnaire sought to solicit information on training needs in leadership and management competencies. The study used Borich's Needs Discrepancy Model (1980) that effectively lends itself to the standard survey questionnaire to collect information and has the added advantage of yielding more data by determining areas in which are of importance and therefore needed, while knowledge rating indicate proficiency in the area (Edwards and Briers, 1999). The items were on a five point Likert scale indicating the level of importance, knowledge and opportunity use, enabling training need to be calculated and prioritised using the Mean Weighted Discrepancy Score (MWDS). According to Joerger (2002), Borich's model can be used to compare training needs within and between different groups by subjecting the median scores and MWDS to further analyses. The study used the modified model to include opportunity of use score to further refine the level of need.
Knowledge Management for Industrial Innovation and Development

Educational Need = \((I - K - I) + ((I - O) - I)/2\)

Where, \(I\) is the importance score, \(K\), the knowledge score and \(O\), the opportunity score.

Each section had additional open-ended questions soliciting further views in the various items. The mean weighted discrepancy score (MWDS) was then calculated from the ratings to derive training need. The MWDS was also used to rank the training needs. All hypothesis tests done at 5 percent level of significance (\(\alpha = 0.05\)).

3 Findings

The majority of extension staff were in their mid career stage as indicated by a mean age of 42.21 years (\(\bar{X} = 8.124\)). The number of years worked ranged from less than one year to 34 years with a mean of 16.13 years (\(\bar{X} = 9.289\)). The respondents had hardly changed employment (\(\bar{X} = 0.62; \sigma = 1.268\)) and could be attributed to depressed employment opportunities in the agricultural sector and loyalty to their respective employers. A summary of the respondents’ demographic characteristics is presented in Table 1. Subject Matter Specialists (SMS) had a minimum of a degree in an agricultural discipline and constituted 38.4 percent (n = 169). The highest level of qualifications was at PhD level (n = 4) and Masters level (n = 37). The large number of diploma holders, 61.6 percent and is a potential for in-service training to upgrade their qualifications. These figures indicate the high level of qualified personnel in agricultural extension that could be attributed to employers’ commitment to professional development. The respondents supervised an average of 7 people with \(\bar{X} = 10.086\), indicating a need for human resource management competencies.

Table 5: Respondents Qualification, responsibilities and span of control

<table>
<thead>
<tr>
<th>Professional Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category of respondent and Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEW Diploma</td>
<td>271</td>
<td>61.6</td>
</tr>
<tr>
<td>SMS Degree</td>
<td>128</td>
<td>29.1</td>
</tr>
<tr>
<td>SMS Masters</td>
<td>37</td>
<td>8.4</td>
</tr>
<tr>
<td>SMS PhD</td>
<td>4</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>440</td>
<td>100.0</td>
</tr>
<tr>
<td>Time spent on Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>290</td>
<td>15.0</td>
</tr>
<tr>
<td>Field work</td>
<td>420</td>
<td>51.1</td>
</tr>
<tr>
<td>Seminars/workshops</td>
<td>357</td>
<td>7.0</td>
</tr>
<tr>
<td>Extension/advisory</td>
<td>372</td>
<td>11.5</td>
</tr>
<tr>
<td>Meeting</td>
<td>395</td>
<td>9.6</td>
</tr>
<tr>
<td>Other responsibilities</td>
<td>157</td>
<td>6.0</td>
</tr>
<tr>
<td>Span of control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>104</td>
<td>23.6</td>
</tr>
<tr>
<td>1-10</td>
<td>246</td>
<td>55.9</td>
</tr>
<tr>
<td>11-20</td>
<td>58</td>
<td>13.2</td>
</tr>
<tr>
<td>21-30</td>
<td>13</td>
<td>3.0</td>
</tr>
<tr>
<td>31-40</td>
<td>9</td>
<td>2.0</td>
</tr>
<tr>
<td>41 and more</td>
<td>10</td>
<td>2.3</td>
</tr>
<tr>
<td>Total</td>
<td>440</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Training Needs in Leadership and Management Competencies

Table 5 shows that all the MWDS were all positive with a mean of 5.15. This implies that the all the leadership and management competencies were important and the respondents required them for training. This also validates their presence in the agricultural undergraduate curriculum. The training need score (MWDS) presented in the last column of Table 3 shows that the Borich Needs Discrepancy Model (BNDM) ciphers competencies with the highest training need as; Motivating employees, Stress management, Managing conflict, Strategic planning and Management and administrative techniques. These courses are basic Human Resource Management competencies required of any manager and cross validates the findings on administration and extension responsibilities, span of control (Table 2) Strategic planning is a key component of the Public Service Reform and all government departments are required to develop Strategic Plans to guide action and increase accountability to stakeholders. Conflict management skills are not only necessary in the work place but also in dealing with conflict in the community over resources or in prioritizing extension activities. Conflicts in agriculture result from scarce resources, conflicting interests, cultural and political differences. Management and administrative techniques competencies was ranked highly with a MWDS of 5.99, underscores the importance of management skills in extension work. Career development planning and Managing finances/budgeting ranked fifth and sixth in priority training needs. Fetsch and Kennington (1997) and Ensle (2005) found job stress to be a condition prevalent among Extension agents and explained that the extension system is stressful and does not provide adequate technical support directly to extension agents at the district and divisional levels, inefficiencies due to inadequate logistical and attendance of many committee meetings, contributed to job stress for Extension agents. Summerhill and Arrington (2000) found factors such as over-commitment, continuous multi-tasking and working late were statistically related to the amount of stress an agent experienced. Extension activities are often intense job assignments, obligation to work irregular hours, and working with farmer groups and stakeholders with conflicting interests contributes to stress among extension staff (Strong and Hardy, 2009; Kutilek, Conklin, and Gunderson, 2002).
Table 3: Training Need in Management and Leadership Competency

<table>
<thead>
<tr>
<th>Management and Leadership Competencies</th>
<th>Importance M</th>
<th>SD</th>
<th>Knowledge M</th>
<th>SD</th>
<th>Opportunity M</th>
<th>SD</th>
<th>MWDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivating employees</td>
<td>4.29</td>
<td>1.09</td>
<td>3.19</td>
<td>1.21</td>
<td>3.47</td>
<td>1.44</td>
<td>6.77</td>
</tr>
<tr>
<td>Stress management</td>
<td>4.25</td>
<td>0.99</td>
<td>2.85</td>
<td>1.21</td>
<td>3.44</td>
<td>1.34</td>
<td>6.77</td>
</tr>
<tr>
<td>Managing conflict</td>
<td>4.28</td>
<td>0.94</td>
<td>2.91</td>
<td>1.19</td>
<td>3.54</td>
<td>1.27</td>
<td>6.25</td>
</tr>
<tr>
<td>Strategic planning</td>
<td>4.34</td>
<td>0.92</td>
<td>2.94</td>
<td>1.17</td>
<td>3.67</td>
<td>1.28</td>
<td>6.17</td>
</tr>
<tr>
<td>Management and administrative techniques</td>
<td>4.28</td>
<td>0.96</td>
<td>2.93</td>
<td>1.19</td>
<td>3.65</td>
<td>1.30</td>
<td>5.99</td>
</tr>
<tr>
<td>Career development planning</td>
<td>4.03</td>
<td>1.11</td>
<td>2.86</td>
<td>1.19</td>
<td>3.26</td>
<td>1.33</td>
<td>5.93</td>
</tr>
<tr>
<td>Managing finances/budgeting</td>
<td>4.39</td>
<td>0.93</td>
<td>3.05</td>
<td>1.20</td>
<td>3.73</td>
<td>1.32</td>
<td>5.84</td>
</tr>
<tr>
<td>Balancing personal/professional life</td>
<td>4.19</td>
<td>0.97</td>
<td>3.02</td>
<td>1.20</td>
<td>3.66</td>
<td>1.21</td>
<td>5.58</td>
</tr>
<tr>
<td>Employee appraisal and counselling</td>
<td>4.22</td>
<td>1.07</td>
<td>3.17</td>
<td>1.21</td>
<td>3.57</td>
<td>1.38</td>
<td>5.44</td>
</tr>
<tr>
<td>Problem solving</td>
<td>4.46</td>
<td>0.80</td>
<td>3.28</td>
<td>1.09</td>
<td>3.93</td>
<td>1.08</td>
<td>5.30</td>
</tr>
<tr>
<td>Decision making</td>
<td>4.54</td>
<td>0.77</td>
<td>3.52</td>
<td>1.09</td>
<td>4.10</td>
<td>1.06</td>
<td>5.07</td>
</tr>
<tr>
<td>Maintaining ethical standards</td>
<td>4.32</td>
<td>0.93</td>
<td>3.35</td>
<td>1.20</td>
<td>3.89</td>
<td>1.13</td>
<td>5.05</td>
</tr>
<tr>
<td>Negotiation skills</td>
<td>4.15</td>
<td>0.98</td>
<td>3.05</td>
<td>1.17</td>
<td>3.67</td>
<td>1.19</td>
<td>5.00</td>
</tr>
<tr>
<td>Mentoring/coaching employees</td>
<td>3.96</td>
<td>1.14</td>
<td>3.00</td>
<td>1.19</td>
<td>3.40</td>
<td>1.30</td>
<td>4.91</td>
</tr>
<tr>
<td>Prioritising work</td>
<td>4.53</td>
<td>0.76</td>
<td>3.62</td>
<td>1.05</td>
<td>4.10</td>
<td>1.06</td>
<td>4.82</td>
</tr>
<tr>
<td>Community leadership development</td>
<td>4.42</td>
<td>0.81</td>
<td>3.42</td>
<td>1.03</td>
<td>4.03</td>
<td>1.04</td>
<td>4.70</td>
</tr>
<tr>
<td>Inter-agency collaboration/partnership</td>
<td>4.31</td>
<td>0.90</td>
<td>3.39</td>
<td>1.01</td>
<td>3.96</td>
<td>1.06</td>
<td>4.39</td>
</tr>
<tr>
<td>Time management</td>
<td>4.61</td>
<td>0.71</td>
<td>3.78</td>
<td>1.05</td>
<td>4.30</td>
<td>0.97</td>
<td>4.34</td>
</tr>
<tr>
<td>Team building</td>
<td>4.54</td>
<td>0.74</td>
<td>3.65</td>
<td>0.98</td>
<td>4.27</td>
<td>0.89</td>
<td>4.11</td>
</tr>
<tr>
<td>Leadership skills</td>
<td>4.58</td>
<td>0.69</td>
<td>3.72</td>
<td>0.93</td>
<td>4.32</td>
<td>0.84</td>
<td>3.98</td>
</tr>
<tr>
<td>Delegating responsibility</td>
<td>4.14</td>
<td>0.92</td>
<td>3.48</td>
<td>1.00</td>
<td>3.76</td>
<td>1.13</td>
<td>3.73</td>
</tr>
<tr>
<td>Overall mean score</td>
<td>4.34</td>
<td>0.905</td>
<td>3.17</td>
<td>1.154</td>
<td>3.76</td>
<td>1.18</td>
<td>5.15</td>
</tr>
</tbody>
</table>

Comparison of Management and Leadership MWDS Ratings for Extension Agents from the Public and Private Extension Service

Table 3 shows that the mean MWDS ratings for the Public sector was higher than that of the Private sector, however the relatively high MWDS obtained across all the competencies for both the Public and Private sector indicate a high training need. Strategic planning, Management and administrative techniques and Career development planning were significantly different with the Public sector registering higher training needs in these competencies. This may be attributed to a larger span of control in terms of staff numbers in the public sector as opposed to the Private sector. The Districts and divisions being the centres of work demands more management responsibility devolved and therefore the expressed training needs.

Increased emphasis on corporate governance and improved management of public institutions may also contribute to the observed training needs. The discussion on leadership competencies can be perceived in two ways. First leadership competencies in dealing with internal stakeholder that
is agricultural staff and support staff and secondly providing leadership to external stakeholders such as farmers. Table 4 clearly shows that although Motivating employees, Employee appraisal and counselling and Mentoring/coaching employees were not significantly different they were ranked highly and should be prioritised as a training need by both the Public and Private sector.

Similar findings were obtained by Strong and Harder (2009) in a study of maintenance and motivation factors of agricultural extension agents who found that mentoring improved the proficiency in planning and implementing extension programmes and in the comprehension of the workplace environment. Kuilek and Earnest (2001) report that the outcome of extension employees partaking in a mentoring plan was an increase in their total leadership efficacy. Therefore the highest ranked competencies; Motivating employees, Stress management, Managing conflict, Management and administrative techniques, and Career development planning ought to be integrated and prioritised in the curriculum development and review programmes and in-service staff development courses.
Table 4: Comparison of MWDS Ratings on Management and Leadership competencies for Public and Private Extension Agents

<table>
<thead>
<tr>
<th>Management and leadership competencies</th>
<th>MWDS</th>
<th>Std. Dev</th>
<th>n</th>
<th>t</th>
<th>Sig. 2 tailed</th>
<th>Mann-Witney U statistic</th>
<th>Asymp. Sig. 2 tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
<td>Public</td>
<td>Private</td>
<td>Public</td>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Stress management</td>
<td>6.99</td>
<td>6.00</td>
<td>5.12</td>
<td>5.77</td>
<td>250</td>
<td>72</td>
<td>1.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivating employees</td>
<td>6.85</td>
<td>6.52</td>
<td>5.51</td>
<td>4.97</td>
<td>225</td>
<td>71</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic planning</td>
<td>6.60</td>
<td>4.87</td>
<td>5.41</td>
<td>5.39</td>
<td>253</td>
<td>83</td>
<td>2.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing conflict</td>
<td>6.54</td>
<td>5.37</td>
<td>5.02</td>
<td>5.48</td>
<td>248</td>
<td>82</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management and administrative techniques</td>
<td>6.30</td>
<td>5.00</td>
<td>4.95</td>
<td>4.50</td>
<td>245</td>
<td>77</td>
<td>2.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career development planning</td>
<td>6.28</td>
<td>4.65</td>
<td>5.42</td>
<td>4.88</td>
<td>242</td>
<td>67</td>
<td>2.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing finances/budgeting</td>
<td>6.11</td>
<td>5.03</td>
<td>4.90</td>
<td>4.90</td>
<td>248</td>
<td>84</td>
<td>1.76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing personal/professional life</td>
<td>5.63</td>
<td>5.36</td>
<td>5.07</td>
<td>4.32</td>
<td>245</td>
<td>65</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem solving</td>
<td>5.50</td>
<td>4.73</td>
<td>4.30</td>
<td>3.72</td>
<td>233</td>
<td>79</td>
<td>1.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee appraisal and counselling</td>
<td>5.32</td>
<td>5.80</td>
<td>4.81</td>
<td>5.78</td>
<td>247</td>
<td>77</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintaining ethical standards</td>
<td>5.31</td>
<td>4.22</td>
<td>4.31</td>
<td>4.45</td>
<td>210</td>
<td>66</td>
<td>1.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>5.27</td>
<td>4.46</td>
<td>3.82</td>
<td>4.33</td>
<td>219</td>
<td>71</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation skills</td>
<td>5.11</td>
<td>4.56</td>
<td>4.35</td>
<td>3.76</td>
<td>236</td>
<td>63</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prioritising work</td>
<td>4.96</td>
<td>4.36</td>
<td>4.30</td>
<td>4.12</td>
<td>215</td>
<td>67</td>
<td>1.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentoring/coaching employees</td>
<td>4.80</td>
<td>5.25</td>
<td>4.52</td>
<td>4.76</td>
<td>237</td>
<td>70</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community leadership development</td>
<td>4.76</td>
<td>4.49</td>
<td>4.12</td>
<td>3.94</td>
<td>240</td>
<td>75</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter-agency collaboration</td>
<td>4.44</td>
<td>4.22</td>
<td>4.00</td>
<td>3.68</td>
<td>239</td>
<td>72</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time management</td>
<td>4.32</td>
<td>4.41</td>
<td>3.81</td>
<td>3.88</td>
<td>205</td>
<td>64</td>
<td>-0.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team building</td>
<td>4.19</td>
<td>3.87</td>
<td>3.79</td>
<td>3.63</td>
<td>235</td>
<td>75</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership skills</td>
<td>3.96</td>
<td>4.03</td>
<td>3.45</td>
<td>3.82</td>
<td>231</td>
<td>75</td>
<td>-0.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegating responsibility</td>
<td>3.76</td>
<td>3.63</td>
<td>3.86</td>
<td>3.78</td>
<td>229</td>
<td>70</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparison of Management and Leadership MWDS Ratings for FEW and SMS

A comparison of MWDS ratings for FEW and SMS is presented in Table 5 and shows no significant differences in the MWDS ratings between the FEW and SMS for management and Leadership competencies except in Managing finances/budgeting with FEW expressing higher training needs. This concurs with the findings of Graham and Cooper (2001) that personal and career development skills ranked higher for county agents (FEW) than county supervisors (SMS). This could be attributed to SMS having more experience at managerial level and training at the undergraduate level as opposed to FEW who are diploma holders. Despite the lack of significance, the relatively high MWDS ratings are an indication of equal importance accorded to these competencies by both groups of respondents. Management skills such as teamwork, conflict resolution, decision making, giving credit, fairness, and delegation were ranked higher for the county supervisors (SMS) than county agents (FEW) (Strong and Hardy, 2009). However the expressed management training need by FEW shows that these management skills is not a preserve of senior management but a skill necessary for effective extension work at the interface with farmers. This concurs with the findings of Graham and Cooper (2001) who found that personal and career development skills ranked higher for county agents (FEW) than county supervisors (SMS).

The decentralisation of extension further emphasises the need for extension staff to have management skills at all levels. These findings concur with Gibson and Schwarz (2010) in which extension agents (FEW) and specialists (SMS) identified understanding the interactions of individuals within groups and how people are motivated as their greatest continuing education and training need. All carders of extension staff identified the development of leadership abilities as most necessary for effective extension work (Gibson and Schwarz, 2010). Engagement with communities and stakeholders is a key tenet in the paradigm shift toward pluralism, demand driven and community based extension and Table 5 shows that Community leadership, Inter-agency collaboration/partnership, Team Building and Leadership skills that are necessary in working with stakeholders was also considered important by both FEW and SMS. Despite there being no significant differences, the relatively high MWDS warrants training in management and leadership competencies for both cadres of staff.
Table 5: Comparison of MWDS Ratings on Management and Leadership Competencies for FEW and SMS

<table>
<thead>
<tr>
<th>Management and leadership competencies</th>
<th>MWDS FEW</th>
<th>Std. Dev FEW</th>
<th>n FEW</th>
<th>MWDS SMS</th>
<th>Std. Dev SMS</th>
<th>n SMS</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
<th>Mann-Witney U test Z statistic</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivating employees</td>
<td>7.18</td>
<td>5.97</td>
<td>4.34</td>
<td>176</td>
<td>120</td>
<td>1.60</td>
<td>0.11</td>
<td>-1.18</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Stress management</td>
<td>7.11</td>
<td>6.25</td>
<td>5.66</td>
<td>195</td>
<td>127</td>
<td>1.43</td>
<td>0.16</td>
<td>-1.27</td>
<td>0.21</td>
<td></td>
</tr>
<tr>
<td>Managing finances/budgeting</td>
<td>6.34</td>
<td>5.12</td>
<td>3.74</td>
<td>196</td>
<td>136</td>
<td>2.23</td>
<td>0.03*</td>
<td>-1.49</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>Strategic planning</td>
<td>6.30</td>
<td>5.98</td>
<td>4.61</td>
<td>201</td>
<td>135</td>
<td>0.53</td>
<td>0.60</td>
<td>-0.34</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Career development planning</td>
<td>6.30</td>
<td>5.44</td>
<td>4.46</td>
<td>176</td>
<td>133</td>
<td>1.41</td>
<td>0.16</td>
<td>-0.84</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>Management and administrative techniques</td>
<td>6.28</td>
<td>5.57</td>
<td>4.48</td>
<td>190</td>
<td>132</td>
<td>1.29</td>
<td>0.20</td>
<td>-0.88</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>Managing conflict</td>
<td>6.16</td>
<td>6.39</td>
<td>4.70</td>
<td>200</td>
<td>130</td>
<td>-0.38</td>
<td>0.70</td>
<td>-0.77</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Balancing personal/professional life</td>
<td>5.63</td>
<td>5.59</td>
<td>3.84</td>
<td>181</td>
<td>129</td>
<td>-0.05</td>
<td>0.96</td>
<td>-0.91</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Employee appraisal and counselling</td>
<td>5.47</td>
<td>5.39</td>
<td>4.80</td>
<td>198</td>
<td>126</td>
<td>0.14</td>
<td>0.90</td>
<td>-0.24</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>Maintaining ethical standards</td>
<td>5.40</td>
<td>4.57</td>
<td>3.94</td>
<td>160</td>
<td>116</td>
<td>1.57</td>
<td>0.12</td>
<td>-1.56</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Problem solving</td>
<td>5.17</td>
<td>5.49</td>
<td>3.88</td>
<td>182</td>
<td>130</td>
<td>-0.66</td>
<td>0.51</td>
<td>-1.07</td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Prioritising work</td>
<td>5.14</td>
<td>4.37</td>
<td>3.36</td>
<td>163</td>
<td>119</td>
<td>1.49</td>
<td>0.14</td>
<td>-0.96</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td>5.01</td>
<td>5.15</td>
<td>3.50</td>
<td>168</td>
<td>122</td>
<td>-0.30</td>
<td>0.77</td>
<td>-0.51</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>Mentoring/coaching employees</td>
<td>5.01</td>
<td>4.75</td>
<td>3.72</td>
<td>183</td>
<td>124</td>
<td>0.49</td>
<td>0.62</td>
<td>-0.09</td>
<td>0.93</td>
<td></td>
</tr>
<tr>
<td>Negotiation skills</td>
<td>4.72</td>
<td>5.43</td>
<td>3.70</td>
<td>183</td>
<td>116</td>
<td>-1.40</td>
<td>0.16</td>
<td>-1.60</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Community leadership development</td>
<td>4.42</td>
<td>5.14</td>
<td>3.24</td>
<td>192</td>
<td>123</td>
<td>-1.54</td>
<td>0.13</td>
<td>-1.83</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Inter-agency collaboration/partnership</td>
<td>4.38</td>
<td>4.41</td>
<td>3.47</td>
<td>178</td>
<td>133</td>
<td>-0.08</td>
<td>0.93</td>
<td>-0.15</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>Time management</td>
<td>4.32</td>
<td>4.38</td>
<td>3.45</td>
<td>157</td>
<td>112</td>
<td>-0.13</td>
<td>0.90</td>
<td>-0.24</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>Team building</td>
<td>3.91</td>
<td>4.43</td>
<td>3.01</td>
<td>190</td>
<td>120</td>
<td>-1.19</td>
<td>0.23</td>
<td>-1.30</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Leadership skills</td>
<td>3.80</td>
<td>4.24</td>
<td>3.01</td>
<td>182</td>
<td>124</td>
<td>-1.07</td>
<td>0.29</td>
<td>-1.01</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td>Delegating responsibility</td>
<td>3.65</td>
<td>3.84</td>
<td>4.04</td>
<td>179</td>
<td>120</td>
<td>-0.41</td>
<td>0.69</td>
<td>-0.36</td>
<td>0.72</td>
<td></td>
</tr>
</tbody>
</table>
4 Conclusions and Recommendations

Agricultural Extension Service is a people-centred service and agriculture is a human-driven activity. Competencies in management and leadership skills are important in working with farmers and other stakeholders. The move toward privatisation, demand-driven, grass-root, bottom-up approaches and decentralisation has focused planning, implementation and coordination of extension activities at the district, divisional level and local level initiatives. This places greater responsibility on extension staff at this level. Rural development encompasses more than extension education. It is a holistic development perspective of the farming community. The extension agent is no longer restricted to technical agricultural competencies but also to the wider context of agriculture. There is therefore need for more emphasis in holistic training in non-technical areas to achieve the objectives of Vision 2030 for the sector.

It is therefore recommended that Strategic planning, Management and administrative techniques and Career development planning Motivating employees, Employee appraisal and counselling Mentoring/coaching employees, Community leadership, Inter-agency collaboration/partnership, Team Building and Leadership skills ought to be emphasised, integrated and prioritised in the undergraduate agricultural curricula and in the design of in-service staff development courses.

5 References


Benefits of Membership to a Microfinance Institution as Assessed by Both Subjective and Objective Measures: A Case Study of the Uganda Gatsby Trust

Joy Turyahabwa and Isaac Nkote Nabeeta – (Makerere University Business School)

1 Background

Microfinance institutions (MFIs) are credited with an array of beneficial impacts to microenterprises (MOEs) across the globe but not everyone is in agreement with this view.

Objective

This paper examines the impact of membership to a MFI on the performance of beneficiary MOEs.

Methodology

Both subjective and objective measures were used to assess benefit.

Results

Subjectively, MFI beneficiaries reported realising benefit from a wide range of the services offered including monetary benefits (the loan/credit scheme) and non-monetary ‘formal services’ (such as extension services, training courses, seminars) and ‘informal services’ (such as the ability to socialise with others). Objectively, joining the MFI was associated with an increase in the mean ‘number of staff employed’ although this relationship was only marginally statistically significant. There was no statistically significant change in ‘capital growth’ associated with membership of the MFI.

Conclusion

The paper calls for a greater utilisation of both subjective and objective measures of impact to foster a more holistic picture and recommends that when using objectives measures of impact, these should be locally adapted.

Key words: Africa, Benefits, MOEs, MFIs, Services

2 Introduction

MFIs are credited with an array of beneficial impacts to MOEs across the globe but not everyone is in agreement with this view (Wright, 2001; Buckley, 1997; Coleman, 1999). Buckley (1997) for example has argued that the commonly touted indicators of success of MFI programmes (high repayment rates, outreach and financial sustainability) say nothing about the impact on the MOE’s operations. Most of the research into the impact of MFIs on beneficiaries has been carried out in East Asia with a paucity of data from Sub-Saharan Africa. This research has mainly been focused on investigating the impact of MFIs services on the accumulation of wealth by the poor. Reported benefits to recipients of MFI services include: increased income; an increase in working capital; increase in investment in fixed assets; reduction in unemployment; better coping capacities in lean
times; and an increase in rural wages (Hossain, 1988; Kamal, 1996; Chowdhury et al, 1991; Mustafa, 1996). Additionally, access to credit has been reported to enable poor people to overcome their liquidity constraints and undertake investments especially in improved farm technology and inputs leading to increased agricultural production (Okurut et al, 2004). Buckley (1997) in a study that was undertaken in the three African countries of Kenya, Malawi and Ghana, however noted that there was little evidence to suggest any significant and sustainable impact of MFIs on beneficiaries in terms of microentrepreneurs graduating to higher or more sophisticated operations, increased income flows or level of employment.

Investigating the impact of MFIs on beneficiaries is driven by the assumption that increased income results in a reduction in poverty. This assumption should be treated with caution because if increased income is not spent on the welfare of the family (for example, if it is spent on alcohol consumption) then there is no increase in wealth and no reduction in poverty. Additionally, poverty is not only about having inadequate income or income below the “poverty line.” This monetised definition of poverty has been criticized for being externally imposed, not taking into account the views of the poor themselves and not recognising the multidimensional nature of poverty. For example, according to the Uganda Participatory Poverty Assessment Process (UPPAP) Kitgum Report, 2002, poverty in rural war affected Northern Uganda was defined as: insecurity; a situation of perpetual need for daily necessities of life; a feeling of powerlessness; a lack of basic physical infrastructure, services, productive assets and social harmony within the community; a deprivation of basic human rights; and the feeling of helplessness to influence the conditions around (Uganda Participatory Poverty Assessment Process (UPPAP) Kitgum Report, 2002).

Measuring the beneficial impact of MFIs services is beset with many challenges with Mansell-Carstens quoted by Wright (2001) reporting that the direct investigation of impact is suspect for the following reasons: i) respondents may be interested in giving false information if loans have been used for a purpose other than the stipulated one; ii) establishing a causal relationship to the actual loan in question involves knowledge of all the beneficiary’s sources and uses of funds; iii) it is difficult to establish what could have happened if the loan had not been made.” Additionally, Wright (2001) observes that attempting to measure impact through changes in income is beset with several problems: i) incomes are usually heavily skewed, the implication of this is that a few high income earners will distort the group average and hence bias study results; ii) that respondents are influenced by the way and whom questions are asked (“Interviewees are likely to provide strategic rather than truthful answers.”); iii) disentangling project impact from “exogenous factors” is impossible.

Despite the above mentioned shortcomings inherent in attempting to measure the impact of MFIs on recipients of this service, there is still an urgent need to try and document benefit of MFIs services to the poor. These studies should be undertaken in all the different socio-cultural settings in which we find poverty including in Sub-Saharan Africa. Such studies are important to inform the provision of microfinance services to the poor as MFIs have been identified by both governments and international development agencies as the favoured intervention against both urban and rural poverty. It is however important that research into the benefits of MFIs services to recipients take a multidimensional outlook to poverty and should begin to listen to the recipients of these services about what they think are the real benefits that they derive from MFIs for these are bound to be influenced by the socio-cultural environment in which one is operating within.

This paper will investigate the benefits derived by recipients of services by one Uganda-based MFI (the Uganda Gatsby Trust) using both subjective and objective measures of benefit.
3 The Case Study

This study was undertaken in 2003 at the Uganda Gatsby Trust (UGT) which at the time of the study was registered as a NGO. It has since been transformed into a business entity, the Gatsby Uganda Limited. UGT was established in Uganda with seed funding from the Gatsby Charitable Foundation (GCF) United Kingdom, itself established by the Sainsbury Family in the 1960s. (Uganda Gatsby Trust, 2002). At the time of the study, UGT’s stated mission was to, “assist in developing a technological base of the small enterprise sector in Uganda and to enable the growth of such enterprises”. It had the following specific objectives: i) to develop a network of micro-enterprises linked to the Faculty of Technology, Makerere University, Uganda in order to increase the quality and value of their output; ii) to introduce students to the opportunities and potential of the small-scale sector and to assist them develop technologies appropriate to it; iii) to assist small scale enterprises (SSE) overcome their problems through extension service; iv) to enable SSE to access credit for further growth.

At the time of the study UGT was headquartered at the Faculty of Technology, Makerere University and had outreach Gatsby club branches in more than 30 districts of Uganda. The Gatsby clubs provided a decentralised institutional framework through which UGT offered services to club members (enterprises). UGT implemented several activities, which enabled intimate interaction between the Faculty of Technology, UGT core staff and the entrepreneurs in the small-scale sector. UGT activities were implemented in two broad areas, activities targeted at the entrepreneurs and those that were targeted at the university student. Activities targeted at the entrepreneur fell under three main areas: i) activities aimed at uplifting SSEs: These included: a) training courses for managers and artisans of small-scale enterprises to address managerial and technical skills deficiencies; b) business development services- UGT sent staff members to offer extension services to interested enterprises with the aim of: diagnosing their problems and formulating appropriate solutions; preparing well-articulated and cost business plans for the enterprises; UGT also coordinated marketing efforts for members through local showrooms and trade fair participation. ii) revolving fund: UGT set up a revolving fund from which Gatsby club members could access loan finance to meet their working capital needs and/or purchase of machinery to improve on their technologies. The loan scheme had four tiers according to the seniority of the borrower. Through this tier mechanism UGT envisaged that by the time a borrower had paid off the second or third loan, their enterprises will have grown to such an extent that they would have their own premises and solid collateral which they could use to access loans from commercial banks. iii) machine lease purchase scheme: UGT established a machine lease purchase scheme, which provided machinery leases for qualified Gatsby Club members.

The aim of the university student programme was to introduce students of engineering to the potentials of the small enterprises sector for job creation and self-employment. Activities undertaken under this programmes included: i) student attachments- university engineering students got to be attached to small-scale enterprises for their industrial training period. This enabled the students to appreciate the problems and potentials of the small-scale sector. As a result, some of them were able to start up micro-enterprises upon graduation thus creating jobs; ii) student projects- UGT supported final year engineering students to design and produce appropriate technology proto-types. UGT then undertook to transfer the technology thus developed to the small sector through the Gatsby Centre for Enterprises promotion (GCEP); iii) technology development and transfer- the GCEP undertook to: a) develop student prototypes into marketable technologies; b) develop new appropriate technologies on a demand-driven basis; c) link up with SME’s to develop and transfer technology.

4 Methodology

Study Design

This study employed a cross sectional descriptive design where respondents accessing the services of the Uganda Gatsby Trust were interviewed for this study using a standardised questionnaire.
The study was carried out at both the Kampala and Mukono Gatsby clubs. Each of these clubs had a membership of about twenty functional enterprises. These member enterprises were organised into peer groups with each group containing about 4 member small scale enterprises. Each of the clubs consisted of about seven peer groups.

**Sampling Procedure**

One respondent from each small enterprise was interviewed for this study. In order to ensure that a representative sample was drawn for this study, 6 peer groups (3 from both the Kampala and the Mukono clubs) were randomly selected and all their active members interviewed for this study. In total 22 respondents representing 22 enterprises were recruited for this study (5 from the Kampala area and 17 from the Mukono area). The peer groups from the semi-rural Mukono area were bigger, more accessible and had more active members than those from the urban Kampala club.

**Statistical Analysis**

Data was collected and entered using SPSS version 6.0. Analysis involved generating frequencies and use of one-way repeated measures ANOVA design to measure business growth (represented by ‘number of staff employed’ and ‘capital growth’) between inception (of the business), before joining UGT (one month before joining UGT) and after joining UGT (one month before the study) using the Wilk’s Lambda statistic.

**Enterprise Growth**

Enterprise growth in this study was assessed using a methodology similar to that employed in the IMPACT micro-and small-enterprise survey, 1995. In that survey because of difficulties in obtaining reliable data on start-up capital and current capital of businesses, they assessed enterprise growth by looking at the growth in size of labour force. In this approach, annual rate of growth in labour force was derived using the formula of linear growth method adopted from Parker and Torres, 1994 (IMPACT, 1995)

\[
\frac{(# \text{ of current workers} - # \text{ of workers at start})}{(# \text{ of workers at start}) \times 100} \div (# \text{ of years in operation})
\]

Where # represents the number...
## Results

**Characteristics of Respondents**

Table 1: Characteristics of Respondents (N= 22)

<table>
<thead>
<tr>
<th>Position of respondent in business</th>
<th>Number (N=22)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director/Proprietor</td>
<td>14</td>
<td>63.6</td>
</tr>
<tr>
<td>Manager</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>Accounts clerk</td>
<td>1</td>
<td>4.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex of respondent</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>18</td>
<td>81.8</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>18.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of years of formal education attained</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 years or less</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>8-11 years</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>12 years and above</td>
<td>10</td>
<td>45.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of respondent</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 years</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>31-40 years</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>41-50 years</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>≥ 51 years</td>
<td>4</td>
<td>18.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never married</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>Married</td>
<td>17</td>
<td>77.3</td>
</tr>
<tr>
<td>Single parent</td>
<td>2</td>
<td>9.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment status of respondent before starting the business</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaried worker</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>Peasant farmer</td>
<td>2</td>
<td>9.1</td>
</tr>
<tr>
<td>Casual labourer</td>
<td>2</td>
<td>9.1</td>
</tr>
<tr>
<td>Petty trader</td>
<td>10</td>
<td>45.5</td>
</tr>
</tbody>
</table>

In Table 1, a total 22 respondents were interviewed for this study. Most 14(63.6%) were the directors/proprietors of the businesses, with others managers 7(31.8%) and one (4.5%) an accounts clerk. Majority (81.8%) were male with 17(77.3%) having attained at least 7 years of formal education. On age, most 15(68.2%) were between 31-50 years old with the majority (77.3%) married or in stable cohabiting relationships. Before starting these businesses, many of the respondents were either employed as salaried workers 8(36.4%) or were involved in petty trade 10(45.5%).
**Characteristics of the Businesses Enterprises**

Table 2: Characteristics of the Business (N= 22)

<table>
<thead>
<tr>
<th>Type of Business</th>
<th>Number (N=22)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal fabrication/Foundry</td>
<td>6</td>
<td>27.3</td>
</tr>
<tr>
<td>Human and animal feeds</td>
<td>10</td>
<td>45.5</td>
</tr>
<tr>
<td>Carpentry and Construction</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>Others (injector pump repair, animal rearing)</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>Age of Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 5 years</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>6-9 years</td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td>10 years and above</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>Gatsby Club membership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Katwe (Kampala Club)</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>Mukono Club</td>
<td>17</td>
<td>77.3</td>
</tr>
<tr>
<td>Duration of Gatsby membership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>1-2 years</td>
<td>9</td>
<td>40.9</td>
</tr>
<tr>
<td>3-4 years</td>
<td>7</td>
<td>31.8</td>
</tr>
<tr>
<td>5-8 years</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>Number of people employed (including apprentices in the past month)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 or less</td>
<td>5</td>
<td>22.7</td>
</tr>
<tr>
<td>6-10</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>11-15</td>
<td>6</td>
<td>27.3</td>
</tr>
<tr>
<td>16 and more</td>
<td>6</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Table 2, shows the characteristics of the businesses enterprises represented in this study. The respondents were mainly involved in human and animal feed processing (45.5%) and metal fabrication/foundry (27.3%). The majority (50%) of enterprises were 10 years or older. All the surveyed enterprises belonged to the two UGT clubs of Katwe (Kampala club) (22.7%) and Mukono club (77.3%). Majority (72.7%) had been members of their UGT branch for between 1 and 4 years. About half (55.4%) of the surveyed enterprises had 10 or less employees including apprentices, while another half (54.6%) employed 11 or more persons.
Microfinance Service Awareness

Table 3: Benefits from Microfinance services offered by Uganda Gatsby Trust (UGT)

<table>
<thead>
<tr>
<th>Respondents aware that UGT is offering the following services:</th>
<th>Number (N=22)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension services</td>
<td>18</td>
<td>81.8</td>
</tr>
<tr>
<td>Seminars</td>
<td>21</td>
<td>95.5</td>
</tr>
<tr>
<td>Saving/loan scheme</td>
<td>21</td>
<td>95.5</td>
</tr>
<tr>
<td>Student attachment</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Local Showroom</td>
<td>11</td>
<td>50.0</td>
</tr>
<tr>
<td>Visitation by UGT staff</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Respondents reporting benefit from the following services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training courses</td>
<td>18</td>
<td>81.8</td>
</tr>
<tr>
<td>Extension services</td>
<td>21</td>
<td>95.5</td>
</tr>
<tr>
<td>Seminars</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Saving/loan scheme</td>
<td>19</td>
<td>86.4</td>
</tr>
<tr>
<td>Student attachment</td>
<td>9</td>
<td>40.9</td>
</tr>
<tr>
<td>Local Showroom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitation by UGT staff</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Other benefits derived from being a member of UGT</td>
<td>20</td>
<td>90.9</td>
</tr>
<tr>
<td>Socialise and make friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquire business and technical skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure and participation at National business shows</td>
<td>6</td>
<td>27.2</td>
</tr>
<tr>
<td>Improve quality of my products</td>
<td>7</td>
<td>31.7</td>
</tr>
<tr>
<td>Improve my morale</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>Gain access to more markets</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>Get into new businesses</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>Get sponsorship for business tours</td>
<td>4</td>
<td>18.2</td>
</tr>
<tr>
<td>Suggestions on how to improve services of UGT</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>UGT should tailor its services to the individual not the group</td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td>Make the loan approval process faster</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help in marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce interest on loans</td>
<td>2</td>
<td>9.0</td>
</tr>
<tr>
<td>Provide better supervision of loans</td>
<td>8</td>
<td>36.4</td>
</tr>
<tr>
<td>Provide security free loans</td>
<td>2</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Table 3, shows microfinance service awareness by respondents. More than 80 percent of the interviewed respondents were aware about the core UGT microfinance services of training courses, extension services, seminars, saving/loan schemes, local showroom and visitation by UGT staff. Only 50 percent of the respondents were aware about the student attachment scheme. More than 85 percent of the interviewed respondents reported having benefitted from the UGT services of training courses, extension services, seminars, saving/loan schemes, local showroom and visitation by UGT staff. Only 40.9 percent reported to have derived some benefit from the student attachment scheme.

Other benefits of membership of to a UGT club that were not listed in the structured questionnaire but were reported by respondents included: ability to socialise and make friends, acquisition of business and technical skills, exposure and participation at national trade shows and gaining access to more markets.
On suggestion of how to improve UGT services, respondents mainly (63.6%) suggested the need to simplify the loan scheme to make it more accessible.

**A Comparison of the Performance of Businesses at Inception, before Joining UGT and after Joining UGT**

Table 4: Compares the Performance of the Businesses at Inception (of the Business) and Before Joining UGT (one month before joining UGT) and after joining UGT (one month before the study. (N=15)

<table>
<thead>
<tr>
<th>Time period</th>
<th>Mean</th>
<th>Std</th>
<th>Wilk’s Lambda</th>
<th>F-statistics</th>
<th>P-Value</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of staff employed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At inception (1)</td>
<td>8.29</td>
<td>6.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before joining UGT (2)</td>
<td>8.90</td>
<td>7.45</td>
<td>0.765</td>
<td>2.92</td>
<td>0.079</td>
<td>0.670</td>
</tr>
<tr>
<td>After joining UGT (3)</td>
<td>14.76</td>
<td>13.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capital growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At inception (1)</td>
<td>1,252,785</td>
<td>2.6 x 10^6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before joining UGT (2)</td>
<td>1,252,785</td>
<td>2.6 x 10^6</td>
<td>0.864</td>
<td>2.21</td>
<td>0.159</td>
<td>0.136</td>
</tr>
<tr>
<td>After joining UGT (3)</td>
<td>28,000,000</td>
<td>7.2 x 10^7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 Discussion

The characteristics of the respondents of this study are similar to those reported in earlier MFIs surveys in urban Uganda, that is domination by male proprietors, more recent surveys of MOEs accessing the services of MFIs indicate that over 70 percent of active clients of MFIs are women (MSE Baseline Survey, 1995; Nannyonjo and Nsubuga, 2004). The gender pattern observed in this study probably reflects the bias of UGT recruitment towards the engineering sector (a sector dominated by males), this was because UGT was originally conceived as a bridge to the informal sector for students from the Faculty of Engineering, Makerere University seeking industrial attachment.
Subjectively, UGT beneficiaries reported realising benefit from a wide range of the services provided. Apart from the saving/loan scheme, access to training courses, extension services, seminars, local showroom, visitation by UGT staff and student attachment was thought to be of benefit to MOEs. Not included in the structured questionnaire but reported as benefits from membership of UGT was the ability to socialise and make friends, acquisition of business and technical skills, exposure and participation at national trade shows and gaining access to more markets. The results of this study point to the fact that consumers of MFI services derive benefit not only from the loan/credit scheme but also from other non-monetary ‘formal’ (such as extension services) and ‘informal’ (such as the ability to socialise with others) services associated with membership to MFIs. That a much wide spectrum of benefits was reported to be derived from MFI membership is in line with a multidimensional approach to viewing poverty as not only ‘income poverty’ but a much broader socio-economic problem that includes illiteracy, limited knowledge, social isolation, lack of access to markets and hence the need to address these.

Objectively, two measures were used to access impact of MFI membership on the MOEs, these were ‘number of staff employed’ and ‘capital growth’ compared at three time periods: inception (of the business), before joining UGT (one month before joining UGT) and after joining UGT (one month before the study). In this study joining UGT was associated with an increase in the mean ‘number of staff employed’ although this relationship was only marginally statistically significant. There was no statistically significant change in ‘capital growth’ that was associated with membership of UGT.

These results suggest that MFI activity may have increased the ‘number of staff employed’ (a surrogate measure of business growth) but did not have any measurable impact on capital growth. These results however should be interpreted with caution as recommended by Wright (2001) who observes that the direct investigation of impact of MFI services is fraught with problems including falsification of information, difficulties of attribution including disentangling project effects from other extraneous effects, the problem of skewed incomes so that a few high income earners will distort the group average and hence bias study results, and for the case of this study inadequate records.

These shortcomings notwithstanding, this study seems to suggest that membership to an MFI may have had a positive impact on UGT beneficiaries which was manifest as a growth in the number of staff employed but not in capital growth. A number of authors have reported a diversity of impact of MFIs on MOEs. Burger (1989) for example observed that the impact of MFI activity on MOEs is to stabilise rather than increase income and to preserve rather than create jobs. Mosley and Hulmes (1998) in their study of 13 MFIs in seven countries concluded that household income tended to increase at a decreasing rate as the debtors income and asset position improved.

Case studies that have undertaken in-depth investigation of the impact of MFIs on beneficiaries have observed that contrary to the beneficiaries working towards the conventional markers used to assess MFI impact (such as increased technical innovation), many borrowers use the loans obtained to among other things diversify into other related fields (Wright, 2000). In the words of Wright (2000), ‘the poor are too smart and too risk averse to put all their eggs in one basket.’ This last example illustrates the fact that many times the priorities of the poor are different from those of the researcher (and hence may not be picked at research by the existing research tools). This calls for researchers to be more socio-culturally sensitive and for the greater involvement of the study participants.

In conclusion, studies of impact of MFIs on the activities of MOEs should combine both subjective and objective measures of impact for a more holistic picture. Secondly, when using objectives measures of impact care should be taken to ensure that they have been locally adapted.
7 References


12

The Impact of Knowledge Management and Intellectual Capital on Institutional Innovations

Kavita C. Kyuli and Gilbert Indanya – (The Kenya Institute of Management, Narok Branch, Kenya)

1 Abstract

This paper is based on an on-going hospitality and tourism diploma graduates research study, which aimed at investigating the role of knowledge management and intellectual capital assets on institutional innovations in hospitality and tourism establishments. The central hypothesis to the study was that by effecting knowledge management (KM) and managing intellectual capital (IC) there was wider scope for the generation, implementation and exploitation of organisational innovations in middle level institutions and universities in Kenya. The paper explored the factors that favour effective implementation of KM and IC in hospitality and tourism establishments, and examined the link between such factors and the generation of ideas for innovation. Innovation was viewed as the successful exploitation of ideas, which are new to the unit of adoption. Therefore, the cultivation of an environment conducive to human creativity and freedom of thought is essential for innovation generation.

This paper draws its tentative conclusions from semi-structured interviews with senior, mid-level managers from hospitality and tourism establishments in Maasai Mara game reserve and questionnaires for students on field attachment from different middle level institutions and universities in Kenya. It concludes that KM and IC contribute to process and product innovations in different complex ways and findings show that students from middle level institutions are better prepared for hospitality and tourism establishments’ jobs than those from universities. The role of culture, systems and people, motivation, organisational systems and structure are important in this regard. From hospitality and tourism industry context, there is very little empirical study on the impact and measurement of knowledge management and intellectual capital on incremental and radical innovations.

Key words: Innovation, Intellectual capital, and Knowledge management

2 Introduction

The importance of new ideas and their manifestations as processes, practices or products cannot be overstated in competitive markets and in an era of Globalisation. They are at the core of social change. Increasingly, innovation is being recognised as a fundamental agent of organisational change. Despite diverse perspectives, many researchers are in agreement on the importance of innovation as a pre-requisite for competitive advantage. Innovations come from many different sources and exist in many different forms. A common typology distinguishes product and process innovation. Product innovation describes that where a new product is the outcome. Process
innovation denotes innovation where the process by which a product is developed is exposed to new ideas and therefore, leads to new, often more sophisticated methods of production. Moreover, there is a dichotomy between radical and incremental innovation (Damanpour, 1987).

Innovation can be radical, in response to crisis or pressure from the external environment, but it can also be incremental where step by step changes are more common. Research on innovation has developed and taken on various shapes over the last 50 years. The level of analysis in innovation research is a useful preparatory consideration. The individualist perspective, which is grounded in social psychology, is predicated on the assumption that the individual is the source of innovation.

This structuralist perspective is grounded in open systems theory and structural contingency theory; therefore, organisations are analysed as systems of interdependent parts, which cannot exist autonomously. It is assumed that the organisational characteristics, such as size, strategy, longevity and function play a central part in organisational innovations. The structuralist perspective has been criticised for drawing inert conclusions about the nature of innovation and perceiving the organisation as an objective entity that is driven predominantly by predictable forces (Slappendel, 1996). Increasingly there have been recommendations to take a more multivariate approach to the study of innovation.

Integration of both the individual and organisational levels of analysis to achieve a synthesis between action and structure is encouraged (Van de Ven and Poole, 1988). Attempts to incorporate these diametrically opposed concepts have influenced developments in process theory. In essence, process perspectives recognise the unpredictable and dynamic nature of innovation. It is a complex process with cognitive, social and political dimensions that should be understood in particular organisational contexts (Egbu et al, 2001; Swan et al, 1999).

In order to create an environment conducive to innovation, it could be argued that there needs to be an effective management of this complex process. Thus, increased attention is focused on KM and IC management as a possible pre-requisite to successful innovation. In the last decade there has been a shift in management focus from traditional accountancy practices where financial capital is paramount, to growing realisation that intangible assets are of greater significance in our knowledge-based economy (Egbu et al 2000, 2001). However, the Gottlieb Duttweiler Foundation found that only 20 percent of knowledge available to an organisation, is actually used (Brooking, 1996). Knowledge can be a valuable resource for competitive advantage and harnessing its value is one of the pre-eminent challenges of management.

There are different types of knowledge in an organisation from the tacit knowledge of individuals, which is articulated and intuitive, to explicit knowledge that is codified and easily transmitted (Nonaka and Takeuchi, 1995). Further distinctions have been made by academics and practitioners involved in the IC debate. Three components of IC have been identified comprising human, structural and customer capital (Edvinsson, 2000; Bontis, 1998; Bontis et al, 2000). Clearly, structural capital describes the internal structure of an organisation, such as its strategies, core competencies and culture, which is always context specific. Customer capital encompasses the external intangible assets of an organisation. External forces play a part in determining the market position and strength of an organisation. Customers are the principal determinants of this position (Smith and Saint-Onge, 1996).

However, it is asserted that the human capital in an organisation is the most important intangible asset, especially in terms of innovation (Edvinsson, 2000; Stewart, 1997; Brooking, 1996). The unique tacit knowledge of individuals is of immense value to the organisation as a whole, and is the “wellspring of innovation” (Stewart, 1997). Identification of the different types of knowledge available to an organisation is the first step to understanding how to manage them. Therefore, KM is intrinsically linked to IC. There are many definitions of KM. However, an operational definition has been developed for the purposes of this research. KM is about the processes by which knowledge is created, captured, stored, shared, transferred, implemented, exploited and measured to meet the needs of an organisation. These processes lead to the establishment of a knowledge-based organisation.
In respect to this hospitality industry, maturation and growth in terms of number and type of jobs and number and type of academic programmes, may cause great confusion in terms of what is expected from a graduate as higher education or she exits from a higher education hospitality management programme and enters the workforce. Hospitality programme graduates need to know what is expected of them by industry managers in order to succeed. Similarly, hospitality managers need to know which hospitality management diploma graduate expectations are deemed fair and reasonable by their managerial peers.

Weeks and Muehling (1987) showed that a better understanding of students’ perceptions of a career aided corporate recruiters in attracting a more qualified workforce. In addition to students, educators desire to transfer accurate images of the industry in which they teach to provide a more precise and reliable description to students of their future workplace. An accurate transfer may help satisfy both the needs and expectations of students as well as future employers, possibly leading to higher job placement rates by the institution. An accurate understanding of job competency expectations of new hires by lodging managers is not only critical to the future success of these employees, but to the overall business operation itself (Getz, 1994; Lewis and Airey, 2001). According to Getz, young adults are important to the industry’s long-term sustainability.

Hospitality programmes offering internship opportunities or cooperative work experience programmes provide their students the ability to gain work experience in the hospitality industry prior to graduation; thus, allowing them to gain personal knowledge of the job competency expectations held by lodging managers. If the actual job competency expectations lodging managers’ communicate as important to students during internships or cooperative work experiences are quite different from those taught to them by educators in the classroom, students may find it difficult to ascertain what is truly expected of them for future employment. If students emerge from hospitality management programmes lacking knowledge, skills, or attitudes which are expected by managers to have been instilled during diploma pursuit, these managers will become frustrated and disappointed and seek new recruits from other more viable venues. Therefore this study sought to examine hospitality and tourism industry context on the impact and measurement of knowledge management and intellectual capital on incremental and radical innovations.

**Statement of the Problem**

Organisations that continually innovate are perceived to have competitive advantage over those that fail to exploit opportunities for innovation. However, the management of innovation is a challenging issue that involves complex understanding. How does an organisation become innovative? How are opportunities for innovation exploited to create competitive advantage? What type of management should be implemented to encourage innovation? Predictably there is no clear-cut recipe for success but there have been recommendations made by academics and practitioners alike (Egbu, 2001, 1999a, 1999b). Innovation comes from ideas, ideas that emanate from a collection of different knowledge bases. Both organisational and individual knowledge plays a part in the generation and development of innovations and therefore, must be managed effectively (Egbu, 2000a, 2000b).

Stewart (1994) argues that an organisation's capacity to innovate depends considerably on the knowledge and expertise possessed by its staff, assets “that can vanish overnight.” Therefore, managing that knowledge is an essential requirement for innovative organisations. Knowledge management KM is about harnessing the different types of knowledge or intellectual capital (IC) in an organisation so that they can be commercially exploited, leading to competitive advantage.

It appears necessary to investigate if a difference exists in job competency expectations held by lodging managers for newly hired employees between new hires with a diploma in hospitality management from public middle colleges and new hires with a diploma in hospitality management from Kenyan universities. This is because accurate job competencies need to be communicated to future professionals while these students are still enrolled in higher. Is there a difference in job competency expectations held by lodging managers for newly hired employees between new hires with diploma in hospitality management from public middle colleges or a diploma in hospitality
management from a Kenyan university? The managers will be asked to list the expected job competencies dependent upon whether new hires had a diploma in hospitality management from public middle colleges or a diploma in hospitality management from a Kenyan university. This specification will tell us which institution among the two categories offers knowledge that might be so relevant to the tourism and hospitality establishments.

**Objectives of the Paper**

This paper attempts to improve our understanding of the complex relationship between knowledge management and intellectual capital in improving organisational innovations. This paper is concerned with three main areas of investigation. The first is to explore the factors that favour knowledge management practices and intellectual capital exploitation in organisations. The second is to discuss the link between KM, intellectual capital and organisational innovations. The third is to document some practical knowledge management issues faced by organisations that have come out so far from an on-going study. In so doing, it highlights the different knowledge management practices, indicating that organisations are at different stages of the KM development trajectory and that they ‘learn’ differently and at a different pace.

**3 Literature Review**

This section of the paper discusses the link between KM, IC and innovation. In doing this, it explores the factors that promote knowledge management in organisations, with coverage given to such factors as people, culture, politics, leadership and the external environment. According to the individualist perspective, the major determinants of innovation are the characteristics of the individuals in an organisation. For example, Shepard (1967) cites existential psychology and postulates the merits of the “self-actualizing” person, who works as an autonomous individual with self-worth, not conceding to organisational conformity. In addition, the characteristics of leaders are important. There must be an impetus to create an environment favourable to innovation. It is the role of senior management to have the vision and strategic focus to adopt innovations put forward by lower level employees (Egbu, 2001, Tatum, 1987). It is suggested that the unique tacit knowledge of individuals is a fundamental source of innovation (Egbu and Sturges, 2001, Stewart, 1997).

People are the principal motors of change in the business environment and it is therefore, essential to study the dimensions of social interaction and networking within and across organisations. The management of knowledge is intrinsically linked to the management of people and the processes that facilitate innovation. Organisational culture is of great significance to innovation. Tatum (1987) emphasises that a climate favourable to innovation must be achieved by committing resources, allowing autonomy, tolerating failure and providing opportunities for promotion and other incentives. Thus, an organisation must be flexible enough to facilitate the innovation process (Zaltman et al, 1973). In order to establish a knowledge-based organisation there needs to be a supportive organisational culture. It has been argued that the cultivation of a “learning organisation” is an essential requirement for knowledge managers (Senge, 1990). Further theories about organisational culture favour the evolution of a “community of practice” where social interaction of employees cultivates a knowledge sharing culture based on shared interests, thus encouraging idea generation and innovation.

In all organisations, the politics of knowledge sharing is an issue. Employees and employers from diverse backgrounds often come into conflict over important decisions. It has been suggested that manipulating these tensions to achieve ‘creative abrasion’ is a strategy to maximise innovation (Leonard and Strauss, 1997). However, it is a challenging task that involves disciplined management.

Leadership is an inherent part of organisational culture, but also extends into areas of strategy and structure. According to Van de Ven et al (1989) leadership is an organisational responsibility. They emphasise the value of institutional leadership, to create the structures, strategies and systems
that facilitate innovation and organisational learning. It should build commitment and excitement, collective energy and empowerment. Sullivan (1999) argues the need for a managerial commitment to the long-term strategic vision of an organisation and the motivation to achieve the goals set out. Moreover, empowering employees to generate and share knowledge is the task of management. For example, implementation of rewards and punishment schemes are stimulus for successful KM (Scarbrough et al., 1999). Motivating employees to share the knowledge they have involves good people management, where trust is itself an incentive.

The establishment of a psychological contract between employer and employee, for example, is a constructive approach to developing a knowledge-sharing culture (Scarbrough et al., 1999). The external business environment is an essential dimension in this discussion. While not everyone would honour the structuralist’s view that the principal determinants of individual and organisational knowledge are social structures, few could deny the influence of external forces on organisational effectiveness. Achieving competitive advantage requires focused attention on consumer trends and the market. This has become increasingly complex since the Globalisation of business environments, which has compelled organisations to compete and co-operate internationally. The climate of the market has a significant influence on the innovation process.

It is argued that a turbulent environment, where the organisation is in crisis, is likely to induce the adoption and implementation of radical innovations (Shepard, 1967; Pierce and Delbecq, 1977). In the construction industry the advent of partnering, alliances, and joint venturing PFI and Prime Contracting initiatives has necessitated even further collaboration and knowledge sharing. A more controversial view of approaching KM and IC is to adopt an expanded social systems view, addressing the challenges of global interdependencies, environmental concerns and larger social responsibility (Allee, 2000).

4 Job Competency Modelling in the Hospitality Industry

Competency models are represented in different formats, depending on the methods used to collect the data, customers’ requirements, and the particular biases of the people creating the model” (p. 75). Models are created by utilising some or all of a variety of techniques which include: job-analysis interviews, focus groups, questionnaires, job descriptions, and success factors (Mirabile, p. 75). As one example, a hospitality organisation may identify success factors and rank-order those factors by their critical need for a specific position and then establish proficiency levels for each factor as determined by input through focus groups or questionnaires of industry and/or academic professionals. Success factors for an entry-level lodging manager include knowledge, ability, and attitude as indicated in the work of Tas (1983, 1988).

Sandwith’s (1993) conceptualisation/creative domain referred to the “cognitive skills associated with comprehending important elements of the job” (p. 46). To help ensure success, one must know the knowledge required for top performance with his or her position. The leadership domain, however, is concerned with taking that knowledge and “generating ideas for action” (p. 47). The interpersonal domain focuses on the “skills for effective interaction with others” (p. 48). The administrative domain was focused not on paperwork and administrative tasks, but rather the personnel management systems which had come about in the workplace at the time of Sandwith’s study (notably, occupational health and safety, equal opportunities, and human rights). And, lastly, the technical domain remained much as Katz (1955) described it and focused on the actual type of work that the specific organisation does.

For the purposes of entry-level managers entering the hospitality industry a model based upon success factors (competencies) such as knowledge, ability, and attitude would appear to be a logical starting point when such a model is grounded in the key competencies determined important for entry-level managers in the hospitality field (Getty et al., 1991; Guglielmino and Carroll, 1979; Tas, 1983, 1988). While developing a competency model is not the aim of this research, it is important to note that over the past decade competency models have emerged on the scene within hospitality
management higher education programmes (Brownell and Chung, 2001; Lefever and Withiam, 1998; Lin, 2002). By regularly inquiring among industry practitioners what expectations they hold for entry-level hospitality managers, curricula can be designed, redesigned, or altered to make sure that key competencies are being gathered by the students enrolled in said curricula.

5 Methodology

This paper is based on an on-going hospitality and tourism diploma graduates research study, which aimed at investigating the role of knowledge management and intellectual capital assets on institutional innovations in hospitality and tourism establishments. The study employs a combination of research methodologies including an extensive review of the relevant literature on knowledge management, discussions with researchers in knowledge management, semi-structured interviews with senior, mid-level managers from hospitality and tourism establishments in Maasai Mara game reserve and questionnaires for students on field attachment from different middle level institutions and universities in Kenya.

Five hospitality and tourism establishments in Maasai Mara game reserve are participating in this study and all of them are offering lodging facility. They include: Simba Mara, Sarova hotels, Mara Sopa Lodge; Kichwa Tembo Tented Safari Camp; Serena hotel and Keekolok lodge. Small, medium and large establishments were targeted and participants were chosen from senior management, middle management and junior personnel. So far, 10 interviews have been conducted in the five diverse establishments.

Knowledge Management Practices: Some Tentative Findings

All the establishments that participated in the study declared that they manage the knowledge assets within their organisations in one form or another as they see this as important to the survival of their businesses.

Tacit and Explicit Knowledge

Some of the organisations maintained that informal KM practices existed in the form of verbal communication and social interaction. However, all organisations backed this up with more formal procedures to encourage knowledge sharing, such as regular meetings and an internet. The largest organisation that participated in the study had implemented formal programmes, such as investment in people and the Business Excellence Model to assist in the formal development of KM practices especially new hire from middle colleges and universities in Kenyan. In contrast, the smallest organisation, with approximately 20 employees, opted out of investment in people because of its rigid regulations for employee assessment, preferring a more flexible approach to monitoring and evaluating employee performance. In this example, it could be argued that, the size of an organisation might influence the level of formality involved in KM practices.

Culture

All the participating establishments declared that there was some degree of teamwork involved in their business. One respondent asserted that “the whole thing revolves around teamwork”, suggesting that informal team meetings are a regular and valuable practice for sharing and transferring knowledge. While in another establishment there was less emphasis on the benefits of teamwork due to the specialised nature of the work done. However, looking more closely at two of the participating organisations with very specialised staff, there was a noticeable difference in culture and how this influences the communication of productive knowledge. Whilst one of the organisations had a relatively open culture, encouraging interaction of employees as a means of generating new ideas, the other could be said to be more autocratic in its approach to innovation. Most ideas were directed from senior level and fed downward through the organisation.
Leadership

Two out of the five organisations interviewed had developed a specific role for the lodging manager. They recognised the important contribution that the management of knowledge can make in establishments environments and how this then links to the wider organisational base. It was highlighted that such a defined role was beneficial to the co-ordination and leadership of the establishments. In these organisations, all their lodging managers were committed to the human capital in lodges and in the wider organisations and promoted flexible and open ways of working. Where there was no formally defined lodging manager, commitment from senior management to acknowledge human capital varied. In one organisation core values and competencies of the organisation were identified, documented and communicated throughout the organisation. The above discourse highlights the importance of the human capital (that is tacit knowledge). It therefore follows that any knowledge management programme that only focuses on explicit knowledge and ignores tacit knowledge is bound to have a limited contribution to the innovative capability of an organisation.

6 Conclusions and Recommendations

The paper has considered the importance of knowledge management and intellectual capital to organisations. Knowledge management practices differ from organisation to organisation. Organisations ‘learn’ at different rates and apply different techniques in managing knowledge. This paper is based on a general consensus that the management of knowledge assets is vital for business. The management of knowledge and intellectual capital provides opportunities for project creativity and innovation. However, the effective implementation of knowledge management in organisations depends on many factors, which includes people, culture, structure, leadership, people and the environment. In most organisations, there is a lack of appropriate formal measuring constructs for the measurement of the benefits of knowledge assets to organisational performance. There are also very few empirical studies on knowledge management in tourism and hospitality establishments which takes a human resource perspective in their hires from universities and middle colleges. For researchers, education and training providers, there is an urgent need as well as ample scope for a concerted effort to be levelled at this very important area, and for it to be exploited for the benefit of tourism and hospitality establishments in Kenya.

7 References

Knowledge Management for Industrial Innovation and Development

Postgraduate Research Conference in the Built and Human Environments. 15 - 16th March 2001, University of Salford, UK


The Perception of Affirmative Action on Women Recruitment: A Case of Organisations within Eldoret Municipality Kenya

Wambui, Tabitha Wangare, Boit, John (PhD) and Gathuthi, Elizabeth Wangari (PhD) – (Moi University Eldoret, Kenya, and The Management University of Africa, Kenya)

1 Abstract

Affirmative action is a practice that redresses discrimination in society and is therefore meant to promote equal opportunities between men and women. The purpose of this study was to examine the public perception of affirmative action on women recruitment in organisations within Eldoret municipality. The study objectives were to establish: the public perceptions about affirmative action, the extent to which affirmative action has been incorporated in recruitment of women and the relationship between affirmative action and organisation performance. The study was guided by Rawlston Theory of Justice (1971) which states that all social primary goods - liberty and opportunity, income, jobs and wealth, and the bases of self-respect be distributed equally and there should be no differences and/or discrimination except those that can be justified on grounds of competence. The research employed an ex post facto survey research design, which was deemed appropriate because it handles situations or events that have already occurred, examines variables with the same characteristics and does not manipulate the variables. Purposive sampling technique was used in selecting the organisations for study. The respondents were picked using simple random sampling. Eight organisations were selected. A sample size of 255 respondents was selected but 210 questionnaires were returned and 8 interviews done. Questionnaires and interviews were used in data collection. Data was analysed quantitatively and qualitatively facilitated by SPSS. Data was presented in frequency tables, graphs and pie charts. An inferential statistic technique, the chi-square test and Mann Whitney U-test were used to test the hypothesis at $\leq 0.05$ level of significance. The hypothesis that an affirmative action policy does not affect significantly recruitment policies in an organisation was tested. The results from the study indicate that there is perverse inequality in employment since men are more represented than women in almost all employment categories. Affirmative action is perceived as the most ambitious attempt to put right the long history of gender discrimination. The respondents proposed recruitment by performance. Among the recommendations given recruitment should be based on actual work performance and not on merit alone and finally, government should provide more educative programmes about affirmative action to ensure the policy is well understood by the public. The study is significant to employees, employers, the Government and the public at large.
2 Background of the Study

In its tumultuous 48-year history, affirmative action has been both praised and pilloried as an answer to gender inequality (Brunner, 2007). The term “affirmative action” was first introduced by President Kennedy in 1961 as a method of redressing discrimination that had persisted in spite of civil rights laws and constitutional guarantees. According to Brunner (2007), it was developed and enforced for the first time by President Johnson. Johnson asserted: “We seek… not just equality as a right and a theory, but equality as a fact and as a result.”

Presidents Kennedy Executive Order 10925 was introduced in March 6, 1961. The terms of this epic order led to the creation of the Commission on Equal Employment Opportunity with the view to ensuring that hiring and employment practices were free of bias (Sithole, Dastoor and Ippolito, 2006). This served as the impetus for the Civil Rights Act (July 2, 1964) signed by President Lyndon Johnson that prohibited all kinds of discrimination based on gender, race, colour, religion, or national origin in the USA (Sithole et al., 2006).

On September 24, 1965 affirmative action was enforced for the first time by Executive Order 11246 (Hutchings et al., 1995). This Executive Order required contractors doing business with the federal government to take additional obligations to determine the under utilisation in their workplace and to develop a plan to remedy it, thus marking the beginning of “affirmative action.” Hutchings et al., (1995) said that since then, employers are obliged to make a good faith effort in targeting underrepresented groups in their outreach, as well as ensuring that job selection criteria do not have an “adverse impact” on underrepresented group. Affirmative action takes this one-step further by requiring certain organisations to actively promote equal employment opportunity and eliminate discrimination (Hutching et al., 1995).

An excerpt from the Executive Order 11246 follows (Part II, Subpart B, Sec. 202(1)):

The contractor will not discriminate against any employee or applicant for employment because of race, colour, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, colour, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

In Africa for instance, affirmative action is actively practiced by many countries. In South Africa, affirmative action started with the oppression of blacks by the whites and the blacks came up with a way to reverse that discrimination (Drogin, 1995). Drogin (1995) reports that in 1991 a South African survey revealed that there were only 30 black engineers vs. 17,840 white engineers, 31 black pharmacists compared with 2,021 whites. In 1994 only 60 blacks were chartered accountants and there were fewer than 20 black architects. The blacks held only 3 percent of managerial positions in a country where blacks represented more than 80 percent of the population! The South African Government was not satisfied with these measures and added the Job Reservation Act of 1994. This law restricted the number of jobs that Blacks, Asians and Coloureds could be occupied in. The Blacks, Asians and Coloureds could not serve with whites in their professional capacity; they could only serve as unskilled or semi-skilled workers. One could not rise beyond junior management positions. This glass ceiling also affected females of all races as well (Drogin, 1995). Due to this, the South African government embraced affirmative action as the pragmatic policy to redress imbalances of the past (Drogin, 1995). An examination of the South African government’s plan clearly reveals their concerns for all the citizens of the country. The concerns include: elimination of unfair discrimination and implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups, to ensure their equitable representation in all occupational categories and levels in the workforce (Sithole et al., 2006). South Africa has effectively
transformed the employment policies of the country through the vehicle of affirmative action (Sithole, 2006).

In Kenya, President Hon. Mwai Kibaki declared that 30 percent of all job vacancies be reserved for women (GoK, 2007). Also an affirmative action campaign to compel the Government of Kenya to implement Affirmative Action before the 2007 General Elections was launched in Nairobi (Manyala, 2007). Women representatives from the civil society and women leaders including women political aspirants from across Kenya set out on a mission to collect one million signatures to be used to petition the Government to implement the Affirmative Action Bill prior to the 2007 General Elections (Manyala, 2007).

Over the last decade, campaign and calls for gender equality have been at the forefront in the political, social and economic arena (Fiss, 1995). In recent years, for instance, affirmative action has been debated more intensely than at any other time in its 35 years history. Most people who advance this theory in favour of gender equality argue that women are not given equal chances to compete with men.

**Statement of the Problem**

Discrimination against women in employment does not always occur because there is prejudice against them, but sometimes because their employment may create more problems and greater expenses for the employer. For instance, the obligation to grant maternity leaves, need for organisations Organising additional welfare facilities and introduction of protective laws such as a ban on night work are considerations which may induce an employer to engage male instead of female labour in organisations. This has therefore led to many organisations being required to embrace affirmative action so as to employ women despite all odds.

Based on *The Preparatory Phase for 1999 Population and Housing Census*, Kenya has more women than men 14,481,018 female and 14,205,589 male. This is a difference of 275,429 (GoK, 2004) and as such women ought to get the lion’s share of the job opportunities available. But on looking at the reality on the ground, women are still fewer in job opportunities. Affirmative action has been advanced to remedy this insignificant population of women in job openings in order to bring a just society. However, affirmative action is not seen to play the obvious role in recruitment. Men are still the majority in employment. The gap is still there and therefore motivates this study to establish if the inequality that exists in employment is logical and justified and to what extent affirmative action is a panacea to this inequality.

3 **Theoretical Framework**

The study was guided by *Rawls Theory of Justice* (1971) which states that all social primary goods, liberty and opportunity, income and wealth, and the bases of self-respect should be distributed equally (Rawls, 1971). The basic point throughout the theory is that, everyone deserves to be treated equally and be offered the same opportunities. But, that is not what it is. It is not what everyone does. Rawls discussed the theory of justice in two models: purity of the heart and the veil of ignorance.

Rawls’s model of “purity of heart” has two parts. First is the description of people in the hypothetical situation of choosing principles for living together. They are imagined as rational, self-interested individuals who aim to do as well for themselves as they can. They are roughly equal in capacity (no one can easily dominate all the others) and they have needs that can be met more effectively by cooperation than by non-cooperation.

The second part of Rawls’ model is: the Veil of Ignorance. Rawls, apart from recognising that persons act on self-interest, also thinks that persons can be rational about their self-interest. This means that a person has a plan to get what s/her higher education wants out of life. That persons know what they need to make their plan work and that persons mostly stick to their plan throughout their lives even if they are never completely successful. Rawls figures that people would simply design
Rawls’ theory of justice revolves around the adaptation of two fundamental principles of justice, which would, in turn, guarantee a just and morally acceptable society. The first principle guarantees the right of each person to have the most extensive basic liberty compatible with the liberty of others. The second principle states that social and economic positions are to be to everyone’s advantage and open to all (Nussbaum, 2000).

The two basic principles of justice states that: each person should get an equal guarantee to as many different liberties and as much of those liberties as can be guaranteed to everyone else at the same time. Principle two states that, inequalities in society are okay only if they are arranged so that the inequalities actually help out the least fortunate persons in society. The inequalities are connected to positions or offices or jobs in society that everyone has an equal opportunity to attain.

However, Rawls is not talking about complete liberty to do, to have or to keep absolutely anything. The inequalities Rawls is talking about are:

1. Inequalities in the distribution of income, jobs and wealth.
2. Inequalities set up by institutions that use differences in authority and responsibility or chains of command.

Suppose all the political doctrines teach, as some do today, that men and women are fully equal as citizens (Piccard, 2004) then that means, according to Rawls theory, all people must be treated equally not only in such matters as voting and political participation, but must also be treated equally in distributing all primary goods and secondary goods. But that still does not mean that men and women are equal in some ultimate metaphysical sense, though each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override. Rawls believes that political actors in a liberal society should not directly contradict the views of religions that posit inequalities between men and women. For instance, it was suggested that a Supreme Court of Justice, in an opinion on sex discrimination, should say only that all people are equal as citizens and not that men and women are equal by nature. In other words, there should be no differences except those that can be justified on grounds of efficiency (Piccard, 2004).

This theory is therefore applicable to this study in that it advances that all people are equal as citizens and not that men and women are equal by nature. There should be no differences in recruitment except those that can be justified on grounds of competence. This theory advances that inequalities in society are acceptable only if they are arranged so that they actually help out the least fortunate persons in society. Affirmative action is a practice that redresses inequality in society and is therefore meant to promote justice.

**Public Perception about Affirmative Action**

Born of the Civil Rights Movement three decades ago, affirmative action calls for minorities and women to be given special considerations in employment, education and making decisions (Froomkin, 1998). Many supporters of affirmative action see it as a milestone, many opponents see it as a millstone, and many others regard it as both or neither - as a necessary, but imperfect, remedy for an intractable social disease (Plous, 2003).

The term affirmative action refers to policies that take race, gender, or ethnicity into account in an attempt to promote equal opportunity (http://www.cre.gov.uk). The focus of such policies range from employment and education to public contracting and health programmes. The impetus towards affirmative action is two-fold: to maximise diversity in all levels of society, along with its presumed benefits, and to redress perceived disadvantages due to overt, institutional, or involuntary discrimination.

Seltzer and Thompson (1985) note significant differences in attitudes on affirmative action held by women, Blacks and Whites. The attitudes of high income Blacks differs from those of less-advantaged Blacks. White women are more supportive of affirmative action programmes than
White males. Well-educated Whites hold more liberal views on affirmative action than less-educated Whites. In a paper on affirmative action presented at the United Nations conference in 1969, Greenberg, (1994) notes that Malaysia, India, Israel, and the United States had affirmative action complying with the definition; Nigeria and Peru had arrangements that did not comply with the definition but were similar in purpose; Yugoslavia had affirmative action within regional minority areas while Sudan and West Germany had no affirmative action. Geust (2004) argues that South Africa has the world’s most extreme affirmative action programme. Geust (2004) further argues that affirmative action ends up helping well-off blacks. That policy hampers productivity and fosters corruption and affirmative action ends up hurting everyone even the purported beneficiaries. Scott and Scott (1998) presented their empirical findings that include the following: that affirmative action programmes for minorities are under fire in the US but they are embraced in South Africa (Scott and Scott, 1998).

According to Froomkin (1998), affirmative action is the World’s most ambitious attempt to redress its long history of racial and sexual discrimination. Nevertheless, these days it seems to incite rather than ease the nation’s internal divisions (Froomkin, 1998).

Affirmative action has been under sustained assault (Sturm and Guiner, 2003). In courts, legislatures, the media and opponents have condemned it as an unprincipled programme of racial and gender preferences that threaten fundamental values of fairness, equality, and democratic opportunity (Sturm and Guiner, 2001). Such preferences, they say, are extraordinary departures from prevailing meritocracy modes of recruitment, which they present as both fair and functional. They are fair because they treat all candidates as equals and they are functional because they are well suited to picking the best candidates. This challenge to affirmative action has been met with concerted response (Sturm and Guiner, 2001).

Landsberg (1995) argues that the history of affirmative action and its efforts to correct the effects of past discrimination promote diversity and endeavour to overcome the two-class society characterised by gender and racial division. Landsberg (1995) added that the perception of affirmative action might lead to the assumption that affirmative action appointees are hired for reasons other than legitimate qualifications for the job. Although anecdotes can be traded, there is little evidence to suggest that there is any truth in the perception that affirmative action recipients are less qualified than their colleagues (Pratkanis and Turner, 1995). Panafrican (2000) notes that there is nothing discriminatory about an orderly transition towards the demographic representation of employees in the workplace, provided that the beneficiaries of affirmative actions have the necessary knowledge and skills. Affirmative action should not create room for quotas, which would mean the promotion of ill-equipped candidates (Landsberg, 1995).

Carloff (2002) argues that affirmative action simply places unqualified and incompetent members into jobs in society and seats in universities - not because they are smart, not because they are qualified, not because they are an exemplary product of education, but entirely because of their gender! Sher (1983) says that affirmative action devalues the accomplishments of people who are chosen because of the social group to which they belong rather than their qualifications. It is said that affirmative action devalues the accomplishments of all those who belong to groups it is intended to help. This makes the affirmative action counterproductive.

Does affirmative action simply change who is discriminated against and makes it legal for the new discriminators? McElroy (2003) advanced this notion that affirmative action is discriminating in order to obtain equal treatment. This seems to violate common sense. Pinkston (1984) commented that President Ronald Reagan’s stance on affirmative action encouraged opposition and decreased the protections of law available to the people discriminated against. McElroy (2003) indicated that people that are involved and the damage affirmative action have in our society surfaces many doubts.

To Garry (2006) affirmative action has undesirable side-effects apart from failing to achieve its goals. It hinders reconciliation, replaces old wrongs with new wrongs, undermines the achievements of minorities, and encourages groups to identify themselves as disadvantaged, even if they are not. Further Delgado (1996) said that affirmative action that aims at removing discrimination is
counterproductive. This is because it requires the very discrimination it is seeking to eliminate in order to work and because it promotes prejudice by increasing resentment of those who are the beneficiaries of affirmative action from those who have been adversely affected by the policy.

According to Fiss (1996), a doubt is created in the minds of some women who obtain the prized positions, including the prize winners themselves, as to whether they would be where they are without preference. For rejected men applicants, there is the frustration of desire, of not being able to obtain specific job. In addition, these applicants suffer a hurt that women know all too well—the hurt that comes from being judged unfavourably on a criterion unrelated to individual merit and over which they have no control (Fiss, 1996).

Sturm and Guiner (2001) argue that affirmative action is still needed to rectify continued exclusion and marginalisation. In addition, Sturm and Guiner marshal considerable evidence showing that conventional standards of selection exclude women and people of colour, and that people who were excluded in the past do not yet operate on a level playing field. However, this response has largely been reactive (Sturm and Guiner, 2001). Proponents typically treat affirmative action as a crucial but peripheral supplement to an essentially sound framework of selection for jobs and schools. Drogin (1995) hails affirmative action as a panacea to redress the imbalances of the past whereas McElroy (2003) perceives it as reverse discrimination.

The South African government boldly declares in the Employment Equity Act, 55 of 1998 that:

It is not unfair discrimination to promote affirmative action consistent with the Act or to prefer or, exclude any person on the basis of inherent job requirement (Drogin, 1995).

Furthermore Delgado (1996) argues, since all men have equal rights, no man’s rights should be sacrificed to compensate for another man’s rights being taken away. Such people often claim that the groups that are most negatively impacted by affirmative action are women who are discriminated against within society. This disproportionate effect is perverse and counter-productive considering that the intent of affirmative action is to eliminate discrimination (Delgado, 1996). According to Delgado this can result in a loss for a nation not working at its full capacity and can also result in undesired effects previously felt by those who were discriminated against. For example, one may be very qualified for a certain job, but may be turned down in favour of a woman who is less qualified but is targeted for affirmative action. If occurring on a grand scale, the country will lose speed in its advances. Each of those individuals turned down will be depressed. Their being turned down might dampen the spirits of others.

In a nutshell affirmative action has its strengths and weakness. Its weakest point is the recruitment of unqualified female employees which is said to lead to reverse discrimination but at the other hand affirmative action is said to be an effort meant to correct the effects of past discrimination and promote diversity.

4 Research Design

A research design is the pattern the research follows. It describes the plan or strategy for conducting the research (Onen and Oso, 2005). This research employed an expost facto survey research design which handles situations, or events that have already occurred and variables, which have the same characteristics. Expost-facto survey research design is a systematic empirical inquiry in which the researcher does not have direct control of independent variable because their manifestations have already occurred or because they are inherently not manipulable (Neuman, 2000). This design observes, explains, and describes phenomena of interest without manipulating the variables or the respondents. The reason for choosing this design was because it was to examine career men and women who have similar characteristics, which is, all of them are already employed and working in an organisation of their own choice.
**Research Area**

This study was carried out in organisations within Eldoret Municipality. The Municipality is the administrative centre of Uasin Gishu District, Rift Valley Province. Uasin Gishu District is situated to the North West of Nairobi approximately 350 kilometres in the Rift Valley province. The District borders five districts, Trans-Nzoia to the North, Elgeyo-Marakwet to the East, Nakuru to the South, Nandi to the West and Kakamega to the North-east. The district has a total land area of 3 784 square kilometres. Uasin Gishu is a highland plateau (GoK, 1995). Notable among the developments in Eldoret Municipality is the Eldoret International Airport, Moi Teaching and Referral Hospital and Kenya Pipeline Authority. The presence of Moi University and Moi Barracks has given Eldoret Town a boost. Eldoret has industries and organisations like Ken-knit, Rai-plywood Limited, Kenya co-operative Creameries (KCC), Rift Valley Bottlers and many others. Eldoret Municipality is the fastest growing town and was therefore chosen to give the views which can be generalised to other towns and cities about affirmative action and women career development.

**Target Population**

The study targeted all the organisations within Eldoret Municipality. Permanently and casually employed men and women both in private and public sectors were examined because the researcher wanted to get the views of them all on how they perceived affirmative action. The respondents were from manufacturing industries, banking institutions, learning institutions and government offices. They were employees at all levels, that is, junior, middle and executive levels. The target population was 255 employees working in the eight-named organisations.

**Sampling Design and Procedures**

The main reason for considering the sample size was the need to keep it as manageable as possible. This enabled the researcher to derive from it detailed data at an affordable cost in terms of time, finances and human resource. Purposive sampling was used to select the organisations for the study. The organisations for the study were picked according to size in terms of workforce. The sample consisted of eight organisations, namely; Ken-Knit, Rift Valley Bottlers, District Commissioner’s Office, Family Finance Bank, Alphax College, Eldoret Municipal Council, Kerio Valley Development Authority (KVDA) and Moi Girls Secondary School. The individual respondents were selected using simple random sampling. A sample size of 255 respondents was selected. Only 210 questionnaires were collected back and 8 interviews done.

**Table 3: Sample Size of the Study**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Questionnaires returned</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken-Knit</td>
<td>72</td>
<td>34.3</td>
</tr>
<tr>
<td>Rift-Valley Bottlers</td>
<td>15</td>
<td>7.1</td>
</tr>
<tr>
<td>Alphax College</td>
<td>17</td>
<td>8.1</td>
</tr>
<tr>
<td>Family Finance Bank</td>
<td>14</td>
<td>6.7</td>
</tr>
<tr>
<td>District Commissioner’s Office</td>
<td>23</td>
<td>11.0</td>
</tr>
<tr>
<td>Eldoret Municipal Council Offices</td>
<td>19</td>
<td>9.0</td>
</tr>
<tr>
<td>Moi Girl Secondary School</td>
<td>13</td>
<td>6.2</td>
</tr>
<tr>
<td>KVDA</td>
<td>37</td>
<td>17.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>210</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Perception Held about Affirmative Action

This section describes perceptions held about affirmative action with respect to the current government's effort to eliminate gender discrimination in the Kenyan society. Affirmative action aims to put right the long history of gender discrimination and promotes diversity (Froomkin, 1998). The section discusses if affirmative action is considered by some as hampering productivity in an organisation, fostering corruption in recruitment, inciting women and as a programme of gender preferences that threatens fundamentals values of fairness and equality. If affirmative action appointees are hired for reasons other than legitimate qualification and if affirmative action lead to reverse discrimination.

Rating of the Kenyan government’s effort to eliminate gender discrimination

The Kenyan government’s determination to reduce inequality in employment and exploit the potential of all citizens, both men and women, is reflected in the Government declaration as reported in the Affirmative Action Bill (2007) that 30 percent of all job vacancies be reserved for women. It is from this declaration that the respondents were asked to rate this move. The cross tabulation results on “what is your gender and how can you rate the current Government’s effort to eliminate gender discrimination in the Kenyan society and bring equality among sexes is as indicated in Table 4.2.

Table 4: Rating Government’s Effort to Eliminate Gender Discrimination

<table>
<thead>
<tr>
<th></th>
<th>How can you rate the current Government’s effort to eliminate gender discrimination in Kenyan society and bring equality among sexes?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V. good (%)</td>
<td>Good (%)</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>11.0</td>
<td>31.0</td>
</tr>
<tr>
<td>% within what is your gender</td>
<td>9.2</td>
<td>26.1</td>
</tr>
<tr>
<td>% within rate the current</td>
<td>57.9</td>
<td>59.6</td>
</tr>
<tr>
<td>Government’s effort.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>5.2</td>
<td>14.8</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>8.0</td>
<td>21.0</td>
</tr>
<tr>
<td>% within what is your gender</td>
<td>8.8</td>
<td>23.1</td>
</tr>
<tr>
<td>% within rate the current</td>
<td>42.1</td>
<td>40.4</td>
</tr>
<tr>
<td>Government’s effort.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>3.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>19.0</td>
<td>52.0</td>
</tr>
<tr>
<td>% within what is your gender</td>
<td>9.0</td>
<td>24.8</td>
</tr>
<tr>
<td>% within rate the current</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Government’s effort.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>9.0</td>
<td>24.8</td>
</tr>
</tbody>
</table>

Respondents who rated the Government’s effort as very good were 19 (9.0%) and those who rated it as good were 52 (24.8%). It is noted that no more than 1/3 of the respondents were of the view that affirmative action is an ambitious effort by government to eliminate gender discrimination in the Kenyan society and to bring equality among sexes.
Of 108 (51.4%) respondents who rated affirmative action as an average mode, 63 (52.9%) were male and 45 (49.5%) female. Over half of both male and female were equally not sure that affirmative action as promulgated by the Government will work. The respondents were not sure if the directive will or will not eliminate gender disparity in Kenyan society among sexes. Thirty one (14.7%) of the respondents indicated affirmative action as poor and very poor.

Perhaps the Government needs to show a further commitment towards the affirmative action programme including combining it with other strategies so as to make it more proactive instead of being reactive. Hence government’s needs to hold more campaigns to educate and sensitize the population about the benefits of affirmative action in eliminating gender discrimination in Kenyan society and bring equality among sexes. The stakeholders also need to put the policy into practice in a manner that is visible to convince those who are in any doubt of the policy.

Affirmative action to put right long history of gender discrimination

The study sought to find out if the respondents perceived the concept of affirmative action as a most ambitious attempt to put right the long history of gender discrimination. A cross tabulation was done and the results of the analysis are as indicated in Table 4.2

Table 4.2: Ambitious Attempts to Put Right Long History of Gender Discrimination

<table>
<thead>
<tr>
<th></th>
<th>Affirmative action is the country's most ambitious attempts to put right long history of gender discrimination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SD</td>
<td>D</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>% within gender</td>
<td>7.6%</td>
<td>16.0%</td>
</tr>
<tr>
<td>% within Affirmative action is the country's most ambitious attempts</td>
<td>90.0%</td>
<td>55.9%</td>
</tr>
<tr>
<td>% of Total</td>
<td>4.3%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>% within what is your gender</td>
<td>1.1%</td>
<td>16.5%</td>
</tr>
<tr>
<td>% within Affirmative action is the country's most ambitious attempts</td>
<td>10.0%</td>
<td>44.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>.5%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td>% within gender</td>
<td>4.8%</td>
<td>16.2%</td>
</tr>
<tr>
<td>% within Affirmative action is the country's most ambitious attempts</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>4.8%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

From the findings, those who agreed and strongly agreed with this view were 148 (70.4%) of which 80 (67.2%) were male and 68 (74.7%) female. Close to ¾ of the respondents indicated that the programme of affirmative action is more likely to reduce gender disparity and bring about equality in recruitment. This is an indication that respondents are confident with the programme of affirmative action.
Those who disagreed and strongly disagreed that affirmative action programme is the most ambitious attempt to put right the long history of gender discrimination were 44 (21.0%) of which 28 (23.5%) were male and 16 (17.6%) female. Eighteen (8.6%) of the respondents were undecided, either due to little or no knowledge of the affirmative action policy. Therefore they opted not to comment. This calls for more educative programmes from the Government to sensitize people on affirmative action.

A further analysis was done to determine if there was any similarity in perception between the males and females on affirmative action as an ambitious attempt to put right the long history of gender discrimination using Mann Whitney U-test. The mean rank for the males was 97.48 and that for females was 115.98 and Mann Whitney U 4460.500. P = 0.020 which is less than 0.05 an indication that there was difference in perception between male and female on the statement that affirmative action is an ambitious attempt to put right the long history of gender discrimination. The results of the analysis on Mann Whitney rank and test statistics is as shown in Tables 4.4 and 4.3.

**Table 5: Ranking Affirmative Action with Gender**

<table>
<thead>
<tr>
<th>What is your gender?</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>119</td>
<td>97.48</td>
<td>11600.50</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td>115.98</td>
<td>10554.50</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6: Test statistics (a)**

<table>
<thead>
<tr>
<th></th>
<th>Affirmative action is the country's most ambitious attempts to put right long history of gender discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>4460.500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>11600.500</td>
</tr>
<tr>
<td>Z</td>
<td>-2.334</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.020</td>
</tr>
</tbody>
</table>

*a Grouping Variable: what is your gender*

**Affirmative action promotes diversity**

Landsberg (1995) amongst other writers on this topic argued that the history of affirmative action and its efforts to correct the effects of past discrimination promotes diversity and endeavours to overcome the two-class society characterised by gender and racial division. This study sought to find the extent to which respondents agree with the Landsberg’s view. The results of the analysis are as indicated in Table 6.
Table 6: Affirmative Action Promotes Diversity

<table>
<thead>
<tr>
<th>Choices</th>
<th>Freq</th>
<th>% Male</th>
<th>% Female</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invalid</td>
<td>6</td>
<td>2.9</td>
<td>2.5</td>
<td>2.2</td>
</tr>
<tr>
<td>SD</td>
<td>9</td>
<td>4.3</td>
<td>2.5</td>
<td>6.5</td>
</tr>
<tr>
<td>D</td>
<td>26</td>
<td>12.4</td>
<td>15.1</td>
<td>8.7</td>
</tr>
<tr>
<td>U</td>
<td>16</td>
<td>7.6</td>
<td>5.0</td>
<td>10.9</td>
</tr>
<tr>
<td>A</td>
<td>118</td>
<td>56.2</td>
<td>54.6</td>
<td>58.2</td>
</tr>
<tr>
<td>SA</td>
<td>35</td>
<td>16.7</td>
<td>10.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100.0</td>
<td>100.0</td>
<td>100</td>
</tr>
</tbody>
</table>

Of 153 (72.9%) respondents who agreed and strongly agreed with this statement, 89 (74.8%) were male and 64 (70.3%) female. As indicated above 72.9 percent of the respondents generally accepted that affirmative action brings about diversity in an organisation and reduces monotony that is most likely to be present in an organisation with mono-worker representation.

Respondents who disagreed and strongly disagreed that affirmative action promotes diversity were 35 (16.7%) and those who were undecided were 16 (7.6%). This therefore calls for the Government to carry out more educative and practical programmes on the benefits of affirmative action in organisations to convince those still in doubt about the effectiveness of the programme.

**Affirmative Action Policy Hampers Productivity**

Productivity is the primary concern of any organisation and without it, the organisation will be as good as dead. The study sought to find out the respondents’ views as to whether or not affirmative action hampers productivity. The results of the analysis are as indicated in Figure 1.

![Figure 1: Hampers Productivity](image)

The respondents who disagreed and strongly disagreed that affirmative action hampers productivity were 140 (65.3%). It was noted from the results that more than 60 percent of the respondents indicated that affirmative action does not affect productivity negatively.

Those who agreed and strongly agreed were 54 (25.7%) and 15 (7.1%) were undecided. This is an indication that some respondents perceive affirmative action as a mode that will affect the efficiency of the organisations.

In comparing gender responses with respect to perceptions towards affirmative action policy hampers productivity in organisations using Mann Whitney U-test, the mean rank for male was 98.89 and that of female 109.56 and Mann Whitney U 4667.000. P = 0.185 is greater than 0.05 hence the null hypothesis (H0) that there is no significant difference between male and female in
their responses to this item was not rejected. This indicates that there were similarities in perception between the two genders and that gender was not a significant factor in this perception. The results of the analysis on Mann Whitney is as indicated in Tables 4.7 and 4.8.

Table 8: Ranking Affirmative Action Hinder Productivity with Gender

<table>
<thead>
<tr>
<th>Affirmative action policy hampers productivity in an organisation</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>117</td>
<td>98.89</td>
<td>11570.00</td>
</tr>
<tr>
<td>Female</td>
<td>89</td>
<td>109.56</td>
<td>9751.00</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Test Statistics (a)

<table>
<thead>
<tr>
<th>Affirmative action policy hampers productivity in an organisation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>4667.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>11570.000</td>
</tr>
<tr>
<td>Z</td>
<td>-1.335</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.182</td>
</tr>
</tbody>
</table>

a Grouping Variable: what is your gender

Affirmative action policy fosters corruption in recruitment

It is widely perceived that affirmative action encourages the employment of women without considering the skills they possess, the level of education and/or experience for the job. In other words, affirmative action is seen as a policy that can foster corruption in recruitment and selection of women employees. A cross tabulation was done to assess the respondents’ view on whether or not affirmative action policy fosters corruption in recruitment. The results of the analysis are as indicated in Table 4.9.
As indicated in Table 9, a majority 136 (71.6%) of the respondents disagreed and strongly disagreed with the view that affirmative action fosters corruption. Of those who disagreed and strongly disagreed with this view, 56 (72.8%) were of certificate level of education, 43 (74.2%) were of diploma level, 35 (67.3%) were undergraduate degree and 2 (66.7%) postgraduate degree holders. Respondents at all levels of education were of the view that affirmative action policy will enhance recruitment of women.

Respondents who agreed and strongly agreed that affirmative action fosters corruption were 38 (30.0%) out of which 15 (19.5%) were of certificate level of education, 10 (17.2%) diploma, 12 (23.0%) undergraduate degree and 1 (33.3%) postgraduate degree. A mere 16 (8.4%) were undecided. Closer to a third of respondents thus doubted the transparency of affirmative action in recruitment of women. This calls for the stakeholders to come up with clear affirmative action strategies that will discourage any forms of corruption in the recruitment of women.
Affirmative Action Incites Women to Aggressively Look for Job Opportunities

Over the last decade campaigns and calls for gender equality have been at the forefront of the political, social and economic discourse. Hence this study sought to find out respondents’ views if affirmative action incites women to aggressively look for job opportunities. A cross tabulation was done to determine the responses on whether or not affirmative action incites women rather than eases the gender division. The results of the analysis are indicated in Table 4.10.

Table 10: Affirmative Action Incites Women to Aggressively Look for Jobs

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>27</td>
<td>43</td>
<td>7</td>
<td>27</td>
<td>13</td>
<td>117</td>
</tr>
<tr>
<td>% within gender</td>
<td>23.1%</td>
<td>36.8%</td>
<td>6.0%</td>
<td>23.1%</td>
<td>11.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Affirmative action incite women</td>
<td>46.6%</td>
<td>59.7%</td>
<td>58.3%</td>
<td>62.8%</td>
<td>56.5%</td>
<td>56.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>13.0%</td>
<td>20.7%</td>
<td>3.4%</td>
<td>13.0%</td>
<td>6.3%</td>
<td>56.3%</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>31</td>
<td>29</td>
<td>5</td>
<td>16</td>
<td>10</td>
<td>91</td>
</tr>
<tr>
<td>% within gender</td>
<td>34.1%</td>
<td>31.9%</td>
<td>5.5%</td>
<td>17.6%</td>
<td>11.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Affirmative action incite women</td>
<td>53.4%</td>
<td>40.3%</td>
<td>41.7%</td>
<td>37.2%</td>
<td>43.5%</td>
<td>43.8%</td>
</tr>
<tr>
<td>% of Total</td>
<td>14.9%</td>
<td>13.9%</td>
<td>2.4%</td>
<td>7.7%</td>
<td>4.8%</td>
<td>43.8%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>58</td>
<td>72</td>
<td>12</td>
<td>43</td>
<td>23</td>
<td>208</td>
</tr>
<tr>
<td>% within gender</td>
<td>27.9%</td>
<td>34.6%</td>
<td>5.8%</td>
<td>20.7%</td>
<td>11.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Affirmative action incite women</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>27.9%</td>
<td>34.6%</td>
<td>5.8%</td>
<td>20.7%</td>
<td>11.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

As indicated in Table 4.10, 130 (61.5%) of whom 70 (59.9%) were male and 60 (66.0%) female disagreed and strongly disagreed that affirmative action incites women to aggressively look for job opportunities in the men’s domain. However 66 (31.8%) perceived affirmative action negatively as a process of inciting women to aggressively look for opportunities in the men’s domain. Only 12 (5.8%) were undecided whether it is an incitement or not.

Based on the results of the analysis, more than 60 percent of the respondents were convinced that affirmative action is not meant to incite women to look for job opportunities in men domains but a strategy to bring about gender equality in society.

Affirmative action as a programme of gender preferences

Is affirmative action a programme of gender preference that threatens fundamental values of fairness and equality as Landsberg (1995) argues? A cross tabulation was done to determine this and the results of the analysis are as shown in Table 4.11.
Of the 140 (67.0%) respondents who disagreed and strongly disagreed with this statement, 77 (65.3%) were male and 63 (69.3%) female. This indicates that a significant proportion of the respondents, both male and female, did not view affirmative action as a programme of gender preference. This implies that these respondents perceived affirmative action as a programme that can lead to equality and social justice.

At the same time 48 (22.8%) of which 28 (23.4%) were male and 20 (21.9%) female agreed and strongly agreed that affirmative action is a programme of gender preference that threatens fundamental value of fairness and equality. Hence there is need for government to continue to educate the public about the benefits of the affirmative action policy for it to gain a wide acceptance among the populace.

### Affirmative Action Leads to Reverse Discrimination

Discrimination comes about when one group is left out from benefiting from the available resources and opportunities. Women have been discriminated in recruitment and career world (Hsieh, 1997; Froomkin, 1998; Sturn and Guiner, 2001). This has been used as the rationale for affirmative action. But affirmative action is said to bring about reverse discrimination (McElroy, 2003). It is from this view that the question was asked to establish if affirmative action is perceived to lead to reverse discrimination. The results of the analysis are as shown in Table 4.12.
Table 12: Affirmative Action Leads to Reverse Discrimination

<table>
<thead>
<tr>
<th></th>
<th>Affirmative action lead to reverse discrimination</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SD</td>
<td>D</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td>% gender</td>
<td>19.2%</td>
<td>32.7%</td>
</tr>
<tr>
<td>% within A.A lead to reverse discrimination</td>
<td>40.8%</td>
<td>57.6%</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.6%</td>
<td>18.1%</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>29</td>
<td>25</td>
</tr>
<tr>
<td>% gender</td>
<td>34.5%</td>
<td>29.8%</td>
</tr>
<tr>
<td>% within A.A lead to reverse discrimination</td>
<td>59.2%</td>
<td>42.4%</td>
</tr>
<tr>
<td>% of Total</td>
<td>15.4%</td>
<td>13.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% gender</td>
<td>26.1%</td>
<td>31.4%</td>
</tr>
<tr>
<td>% within A.A lead to reverse discrimination</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>26.1%</td>
<td>31.4%</td>
</tr>
</tbody>
</table>

Of the 108 (57.5%) respondents who disagreed and strongly disagreed that affirmative action lead to reverse discrimination, 54 (51.9%) were male and 54 (64.3%) female. More than a quarter of the respondents (28.1%) of whom 40 (39.4%) were male and 19 (22.6%) were female agreed and strongly agreed that affirmative action can lead to reverse discrimination whereas 20 (10.6%) were undecided. It appears that the female respondents were more likely to perceive affirmative action as leading to reverse discrimination. This therefore calls for the Government to endeavour to make the policy clear as a measure that is meant to address gender disparity in the work place.

Interviews held with respondents to assess their perceptions of the affirmative action policy indicated that in manufacturing industries, affirmative action was seen to be a noble idea. It was said that women are good in delivering but because of their domestic responsibilities, it becomes too costly to employ them in all the sections of the factory. One respondent retorted, “Domestic problems hinder women productivity in organisations. For instance 20-25 out of 100 of working women are single parents and therefore have the responsibility of serving kids alone. When the child is sick, the woman needs permission to go to clinic/hospital and sometimes the house help can run away forcing the career woman to remain at home and take care of the children.”

This is a prejudice that is always used as an excuse not to take on women for jobs. Another officer said, “Maternity leave is another obstacle to recruitment of women. A woman needs 90 days (3 Months) off with full payment whereas a man may only need 14 days (2 weeks). From this, the organisation has to look for someone to stand-in for this woman while she is away to avoid closure of that department, section or organisation.”

Although a woman is more likely to be absent from work than a man through maternity leave, the children they bring forth are a source of the future workforce which is of benefit to the organisation when the current workforce leaves through retirement, natural attrition or to seek green pastures elsewhere.
In institutions of learning, affirmative action was seen to be a good programme meant to eradicate inequality in employment. Women were considered capable and should therefore be allowed to compete equally with men for job opportunities. However, it was emphasised that recruitment should neither be on merit nor gender consideration alone but that actual work performance should be taken into account as well.

The officer interviewed in a government department quipped, “Affirmative action is the answer to women who work hard in school and make themselves qualified by developing their career. Women can work, and they should be allowed to work. But, there are some types of jobs women cannot do as well as men; masculine jobs like carrying/lifting very heavy objects, construction and so on. Women too have a mentality of preferring softer jobs and are very choosy.”

Affirmative action was considered to be a good programme meant to reduce disparity in employment. However, obstacles to its success include women’s domestic responsibilities which are said to hinder woman’s effectiveness, the metaphysical difference that makes women to be considered weaker than men, and women’s lack of the required qualifications for the jobs presently available in the job market. To reduce this prejudice government needs to come up with strategies to guide employers on how to apply the affirmative action in recruitment of their workforce.

**Perception held About Affirmative Action**

According to this study, 108 (51.4%) respondents rated the Government’s effort to eliminate gender discrimination through affirmative action as average. This means that the respondents were doubtful of the current government’s efforts to raise the proportion of women in the work-place through the affirmative action initiative. This therefore calls for more commitment by the Government to provide more tangible evidence so that the public can become convinced that affirmative action redresses gender disparity in the work-place and in distribution of other related opportunities.

Affirmative action was said to be the most ambitious attempt to put right the long history of gender discrimination by 148 (70.4%) of the respondents. This shows that almost three quarters of the respondents were positive about the role of affirmative action. It is an indication that most respondents were convinced that affirmative action, if well implemented, may reduce gender inequality in recruitment.

Diversity means different people from different places with different backgrounds and perceptions coming to work together. Psychologists argue that people are unique, and have different talents. With affirmative action, men and women can be brought together to work in one organisation. Most respondents 153 (72.9%) agreed that affirmative action promotes diversity. In other words, diversity reduces monotony that is most likely to be present in an organisation with mono worker representation.

Productivity is critical in any business organisation. Every business organisation needs to make profit. Most of the respondents 140 (65.3%) indicated that affirmative action does not hinder productivity in any significant way. Since affirmative action does not encourage employment of unqualified people as (Landsberg, 1995) argued, affirmative action does not affect productivity since only qualified, experienced, skilled and/or good performers are recruited. This though calls for the Government to put the policy into practice in a manner that is visible to convince the (34.7%) in doubt of the effectiveness of the policy.

Corruption can come by in employment when non-performers are recruited. As noted from the results of the study, more than half of the respondents did not agree with the statement that affirmative action fosters corruption. Most of the respondents 136 (71.6%) indicated that affirmative action does not necessarily foster corruption. Affirmative action emphasises giving priority to women who can perform in the job even if they may not be qualified paper-and-pencil wise. As it was indicated by Landsberg (1995) there is nothing discriminatory about an orderly transition towards a demographic representation of employees in a workplace provided that the beneficiaries of affirmative action have the necessary knowledge and skills.
To incite is to urge or stimulate to action either in a favourable or unfavourable sense. Affirmative action is said to incite women to aggressively look for opportunities in the men's domain rather than ease the nation's internal division (Froomkin, 1998). Most of the respondents 130 (61.5%) disagreed with this view and rather agreed with the view by Sturm and Guiner (2001) who said that affirmative action is needed to rectify continued exclusion and marginalisation of women. It is obvious that, by nature women are weak and men are strong, but that does not make them incapable (Piccard, 2004). This therefore means that both men and women should be given equal chances to work in paid jobs. Affirmative action is not therefore a programme for inciting women to aggressively look for opportunities in men's domain but a programme that organisations can embrace to engage women in employment.

In courts, legislatures, the media and opponents have condemned affirmative action as an unprincipled programme of racial and gender preferences that threaten fundamental values of fairness, equality, and democratic opportunity (Sturm and Guiner, 2001). Such preferences, they say, are extraordinary departures from prevailing meritocracy modes of recruitment, which they present as both fair and functional: fair, because they treat all candidates as equals and functional, because they are well suited to picking the best candidates. According to this study, affirmative action was said not to be a programme of gender preference by 140 (66.6%) of the respondents. Gender in employment is not what affirmative action emphasises on but on performance. Almost a quarter (22.8%) of the respondents saw it as gender preference policy. Therefore there is need for government to continue to educate the public about the benefits of affirmative action in recruitment of women.

According to McElroy (2003), affirmative action is discriminating in order to obtain equal treatment. McElroy questioned if affirmative action simply changes who is discriminated against and makes it legal for the new discriminator. Most of the respondents 108 (57.5%) indicated that affirmative action does not lead to reverse discrimination instead it intends to balance the significant imbalance that exists in employment. Males to females according to the census carried in Kenya in 1999 were in the ratio of 49:51 yet males are the majority in employment as evident from the background information. Nevertheless, government ought to ensure affirmative action does not lead to reverse discrimination since according to Delgado (1996), all men have equal rights and no man’s right should be sacrificed to compensate for another man’s rights being taken away.

Generally, the respondents have a positive perception about affirmative action since 63.5% respondents supported the affirmative action initiative. This therefore calls for all the stakeholders’ commitment on the implementation of affirmative action as a criterion in recruitment so as to convince the (47.5%) who still doubt the benefits of the programme.

5 Conclusion

The respondents have positive perception of affirmative action since 108 (51.4%) indicated that affirmative action is the most ambitious attempt to put right the long history of gender discrimination. It is said that affirmative action promotes diversity and does not hamper productivity as was put forward earlier by Guest (2004). Affirmative action is not an incitement to women but a programme to use to reduce the gap that exists in the career world. Affirmative action will not bring about reverse discrimination but will bridge the gap of inequality in employment.

Affirmative action is a stepping stone to women getting to the career world but not totally a panacea to inequality that exists because unless women strive to catch up with their male counterparts in career development, inequality will continue and become justified with or without affirmative action.

6 Recommendations

The study examined the public perception of affirmative action on women recruitment and career development. Arising out of the findings, the following is the recommendation:
Affirmative action should not be seen as a programme that incites women to aggressively look for job opportunities in men's domains rather as a programme that is meant to remedy this intractable social disease. It should therefore be implemented in organisations since it is not seen by most employees, particularly men as a threat to their jobs.

6 References


Miller, J. V. (1986). The Family-Career Connection; Clearinghouse on Adult Career and Vocational Education. Columbus OH, the Ohio State University


President J.F. Kennedy (1961) Executive Order 10925 Article

President L.B. Johnson (1964) Civil Rights Act Article: eod@uci.edu. 19/09/08


“Affirmative action around the world” http://www.cre.gov.uk.30/05/08
Analysing the Role of Local Government in Promoting Knowledge Management in Higher Education: A Case of the City Council of Nairobi

Ntoiti, John and Maureen Kangu – (City Council of Nairobi, Kenya, and The Management University of Africa, Kenya)

1 Abstract

This paper seeks to examine the contribution of local authorities to the promotion and growth of knowledge management in higher education in Kenya. The study more so aims to analyse hypotheses drawing from contingency and legitimacy approaches against the content of the reports and findings as practiced in the field. Majority of the products of institutions of higher learning live in the city and other major municipalities, it would be interesting to find out the role of the local authorities in promoting higher education. The services that the Local Authorities are mandated to provide by Cap 265 (Local Government Act) are critical to the success and smooth running of institutions of higher learning. These services includes provision good roads, sewerage services, water, affordable housing, primary health care, basic primary education, control and manage traffic in the city, proper planning and others have a direct impact to institutions of higher learning.

The best academic brains in this country learn and live in this city and therefore it is critical to address the role of CCN in promoting knowledge management and higher education at large. Consequently it’s worth noting that most of the institutions of higher learning are located within jurisdiction of local authorities and therefore the relationship between the two is critical and more so how CCN promotes knowledge management in their delivery of services as mandated by Local Government Act Cap 265. This paper seeks to establish the role of local authorities in promoting knowledge management in higher education in Kenya using City Council of Nairobi as a case study.

2 Background

Decentralisation, the devolution of increased responsibilities to lower levels of government - and empowerment of sub-national jurisdictions (or governments) have been central and significant features of Africa’s recent reform efforts. The fiscal system in many countries has been decentralised across levels of government central, state (provincial), and local government including municipal governments. This trend is visible in countries with federal constitutions and those that do not and is resulting in the strengthening of the autonomy of local governments. The driving argument in favours of decentralisation is that it improves efficiency in the provision of public goods and services in addition to promoting and advancing national unity in the context of multi-ethnicity.
Table 1: General and Education Decentralisation Matrix

<table>
<thead>
<tr>
<th>Education/General</th>
<th>Administrative</th>
<th>Fiscal</th>
<th>Political</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deconcentration to Regional Government Offices and Regional MOE Offices</td>
<td>Move managerial decisions and managerial accountability to regional offices of central government and MOE.</td>
<td>Give regional managers greater authority to allocate and reallocate budgets.</td>
<td>Create regional, elected bodies to advise regional managers.</td>
</tr>
<tr>
<td>Devolution to regional or local governments</td>
<td>Education sector managers are appointed by elected officials at local or regional level.</td>
<td>Give sub national governments power to allocate education spending and, in some cases, to determine spending levels (that is, through raising revenues).</td>
<td>Elected regional or local officials of general purpose governments are ultimately accountable both to voters and to sources of finance for the delivery of schooling.</td>
</tr>
<tr>
<td>Delegation to schools and or school councils</td>
<td>School principals and/or school councils empowered to make personnel, curriculum, and some spending decisions.</td>
<td>School principals and/or school councils receive government funding and can allocate spending and raise revenues locally.</td>
<td>School councils are elected or appointed, sometimes with power to name school principals.</td>
</tr>
<tr>
<td>Implicit delegation to community schools</td>
<td>School principals and/or community school councils make all decisions.</td>
<td>Self-financing with some government subsidies, especially in remote areas where public schools are not present.</td>
<td>School councils are often popularly elected.</td>
</tr>
</tbody>
</table>

Whilst the generation, storage and diffusion of new knowledge and information at higher academic and research institutions in Africa are improving, there remains many challenges of capacity that need to be addressed if these institutions are to reach their potential and significantly contribute to the goals of social and economic development across the continent. The role of the local government in promoting knowledge management is critical in all these processes. The advent of ICTs and more specifically the Internet in the last two decades has spurred on the role of the local government and helped enhance its services to the users in higher education.

The city council of Nairobi has intensified investment and use of ICTs, an initiative actively supported by the local government has greatly impacted the ability to access knowledge and information for users throughout the research and higher academic communities worldwide. In Kenya currently, research and higher academic institutions, significant strides have been made in this area. But a lot remains to be done. Whilst the IT and Internet infrastructure have improved significantly over the last decade in the region, several other challenges continue to affect access to knowledge and information over the Internet by users. Expensive internet bandwidth, limited access to computers and inadequate user skills are key barriers limiting the access and use of information at the institutions particularly those located in remote areas far from the capital cities. In order to address the issues of capacity building for the local government the broader challenges of capacity building have to be taken into account. These include several intertwined issues that must be carefully considered at the institutional and country levels in order to address the challenges of capacity building. These include training; funding; aligned and relevant policies; management/leadership commitment and the institution's e-Readiness.

**Efforts towards Reaching the Higher Education MDGs**

Local governments, provinces, municipalities, local, and district governments have been assigned an enormous amount of responsibilities in recent times. In countries with federal constitutions, local governments have their own independent fiscal policies and development strategies that may not be consistent with policies pursued by the central government. In others, local governments, acting as agents of the central government, are expected to spend on education and health, nutrition and
sanitation, and on agriculture. How well they have fulfilled these responsibilities will be examined along the dimensions discussed below:

**City Council of Nairobi Initiatives in Expanding the Provision of Public Services**

The City Council of Nairobi has played a key role both in expanding access to public services as well as guaranteeing the affordability and quality of education services. While varying from one district to another, the division of expenditure responsibilities between the centre and sub-national jurisdictions as well as the weight of different layers of government are enshrined in constitutions or/countries’ laws. The principle of subsidiary guided such a division in the most advanced decentralised unitary systems, such as in Nairobi. Nairobi city council is assigned the responsibility of providing public services, which the centre is less effective to fulfil (Ongeri, 2006).

While the provision of national public goods, such as defence, foreign affairs, security, are assigned to central government, other important sending assignments in health, education, road construction and maintenance are on the concurrent list, meaning that both the central government and local governments can spend on them. In other constitutional arrangements, spending on health, education, and sanitation may delegate to local governments by central government. Currently in Kenya, local governments in districts are responsible for providing primary education and health, whereas district councils take care of all education and health services, (Steiner, 2006).

The sub-national governments in Kenya are largely in charge of health care, secondary education and most physical infrastructure. They are responsible for higher education while local governments are assigned responsibility for providing primary education and local infrastructure (Alm and Boex, 2003).

It is worth noting that some of the functions are delegated to more than one layer of government in Kenya they have concurrent policy-setting powers with the centre in social sectors, public works, operations and maintenance spending and social sectors personnel recruitment. Delegating basic health and education spending assignments to sub-national entities constitutes an attempt to deliver effective and tailored government services to local communities. Ideally, this should improve the prospects of countries of achieving the education, health, sanitation and Higher education needs, for example. Furthermore, assigning infrastructure development and maintenance responsibilities to sub-national jurisdictions provides an opportunity to address regional disparities in the distribution of infrastructure, which facilitates the ability of private agents to invest in productive activities and access to employment opportunities. By doing so efficiently and effectively, sub-national jurisdictions can play an active role in reducing poverty in Kenya (Amin and Thrift, 1994).

**Expanding Local Empowerment**

Although the evidence of larger local empowerment is mixed, it has been shown that the increased role of sub-national governments has led to more public participation, particularly of under-represented regions or communities, in decision-making process in Kenyan higher education capacity. This closer proximity of sub-national entities to their consistencies, when accompanied with adequate transfer of competency and resources, improves public accountability and monitoring. This not only forces local authorities to align policies and interventions with local preferences and conditions and respond diligently to local emerging needs but also reduces potential waste in resources as well. As a result service delivery becomes more efficient and cost-effective at the local level. The provision of low-cost and effective government services broadens the access of populations to access social services, thus improving the prospects of countries for achieving the higher education needs. (Halachmi and Bouckaert, 1996).
Territorial Development and Governance in Higher Education Institutions

The changing role of higher education institutions in regional development in our country must be seen within a broader context of globalisation and the changing nature of regional development and governance, notably the shift in emphasis from material to non-material assets (knowledge, skills, culture, and institutions) and the resurgence of the region as an important arena for political and economic activity. The local Government periodically does review of the changes. (Sabel et al, 1989)

Emerging Patterns in Regional Development

For effective regional engagement and advancement of the institutions of higher learning it is vital that those steering the management of local authorities develop an understanding of the enormous transformations that have occurred in the country and examining closely the constituencies. This can be viewed in terms of a shift in phases of capitalist development from a system based upon mass production, Keynesianism, macroeconomic management, and the Welfare State, to one characterised by widespread economic and political de-regulation and the emergence of more decentralised forms of economic organisation. These changes have had major implications for economic development strategies and territorial governance, especially in terms of the dynamics that have been brought to bear upon securing regional economic success from the twin processes of globalisation and localisation in Nairobi (Amin and Thrift, 1994).

One approach to understanding this new economic environment in Nairobi can be found in the concept of the learning economy which emerges from studies of national systems of innovation (Lundvall, 1992; Lundvall and Johnson, 1994). Lundvall defines the learning economy as an economy where the success of individuals, firms, and regions, reflects the capability to learn (and forget old practices); where change is rapid and old skills become obsolete and new skills are in demand; where learning includes the building of competencies, not just increased access to information; where learning is going on in all parts of society, not just high-tech sectors; and where net job creation is in knowledge intensive sectors (high R&D, high proportion with a university degree, and job situation worsens for the unskilled). The learning region depends upon network knowledge that refers not only to the skills of individuals but also to the transfer of knowledge from one group to another to form learning systems and the institutional infrastructure of public and private partnerships. Because network knowledge is highly dependent on interpersonal relations, it can most readily be developed within a particular region.

The Councils ICT and Higher Institutions Programmes

The link between the information society, ICTs, and learning regions is considered to be mutual and self-reinforcing. Regions with strong learning cultures that support the development and uptake of ICT applications may be able to develop competitive advantages and use the information society as a mechanism for growth, whilst the ICTs themselves are constructed through certain social networking processes and contexts to be found in particular regions (the Silicon Valley phenomenon). For less favoured regions the implications are clear: without some attempt to make better use of ICTs, the prospects of cohesion and convergence are poor (Brignall and Modell, 2000).

A number of features can be discerned within this system, all of which have resonances for the management of higher education institutions. First, the economy itself is becoming more regionalised. There is a new geography of capitalist activity associated with the growing internationalisation of production and the mobility of global capital flows, as well as with the declining regulatory capacity of the nation-state. This shift entails a resurgence of the region through the integration of production at a regional level and the decentralisation of large corporations into clusters of smaller business units and the greater role of smaller businesses as sub-contractors, suppliers and franchisees. Economic activity, then, is dominated by interim relationships, or what Sabel et al (1989)
termed “collaborative manufacturing” that emerge at the regional level and allow both competition and collaboration to flourish.

While nation-states remain the basic unit of economic and political organisation, they are losing their monopoly on policy making, representation, legitimacy and questions of identity (Amin, 1994). Second, in the context of the lifelong learning agenda, learning and teaching activities have moved away from a linear model of transmission of knowledge based upon the classroom and are becoming more interactive and experiential, drawing upon, for example, project work and work-based learning, much of which is locationally specific. Within this changed context, learning and knowledge creation take on different characteristics. In particular, it is important to differentiate between modifiable knowledge, that is, know-what (such as data) and tacit knowledge such as know-how (skills), know-who (networking) and know-why (experience). These latter forms of “hybrid knowledge”, then, become the most valuable type of knowledge depending upon interpersonal relationships, trust and cooperation and are most readily developed within the region (Gibbons, 2004).

Moreover, according to Gibbons et al (2004), there has been a shift from “mode 1” knowledge creation, which is homogeneous, disciplinary and hierarchical and which characterises the autonomous and distinct academic disciplines, to “mode 2” knowledge production that is heterogeneous, transient, transdisciplinary, socially accountable, and reflexive, and undertaken in a context of application. Third, in the wake of the declining regulatory capacity of the nation-state, the institutions that regulate economic activity are being regionalised. At a regional level, an array of intermediate organisations are emerging that create in any particular locality an institutional thickness comprised of a membership of institutions in Nairobi that will typically include firms, chambers of commerce, government agencies, R&D laboratories, and training and educational institutions, including universities (Gibbons et al, 2004).

This membership constitutes the basis for “associative governance” (Hirst, 1994) that signifies a shift from state regulation to regional self-regulation. Moreover, these networks rely upon animators who generate dialogue between the various organisations. The success of this network of organisations is underpinned by a “soft infrastructure” or what has been called “social capital” and “untraded interdependencies” (Storper, 2005), that include aspects such as trust, norms, values, and tacit and personal knowledge. These are key elements of the socio-cultural milieu within which regional networks of inter-firm organisations are embedded.

**Conversion of Tertiary Colleges to Higher Education Institutions in Kenya**

Firstly, in the light of this regionalisation of the economy, higher education institutions are confronted with new client bases in terms of both teaching and research. According to Lundvall (1994), traditional relationships with large corporations and nationally-based firms and research organisations are being supplemented by a new regional client base comprised of clusters of firms and the emergence of regionally-based supply chains of SMEs. Such trends have important implications for the skills required of graduates and the way in which universities and colleges manage the interface between degree courses and the labour market in Kenya. In particular, there is a greater demand for the provision of vocational and professional education from higher education institutions that reflects the needs of the regional economy (Gibbons et al, 2004).

Universities and colleges have much to gain in adapting to these evolving realities of a more regional economy. In particular, regional networking can be thought of as an institutional survival or strengthening strategy, especially for universities. As Morgan (2010) comments, learning, of course, is worth little if there are no opportunities to implement what has been learned. In this sense, a strong and supportive regional economy will create a competitive university, and a strong university has more to offer a region (Deetya, 1998). However, it should be emphasised that universities, whatever their missions, remain autonomous institutions with allegiances to multiple territories rather than specific regions. In this regard, their relationship with territory is more ambivalent than that of public authorities with a legally defined domain.
Secondly, the emergence of inter- and transdisciplinary research centres within universities which engage with external research partners and increasingly rely on external funding sources can be situated within the shift to a new mode of knowledge production (Gibbons et al., 2004). Because interactive forms of learning are inherently bound in time and space, university teaching and research show tendencies towards localisation, or regionalisation (Storper, 2005). It is within this new regional context for learning and knowledge that connections can be forged between the teaching and research agendas of universities in Kenya. In particular, the university acts as a conduit through which research of an international and national nature is transferred to specific localities through the teaching curriculum (Gibbons et al., 2004).

Thirdly, historically higher education institutions have played a key role in nation building and continue to underpin a wide range of national institutions through the participation of academic staff in numerous public bodies (Storper, 2005). However, as the institutions that regulate economic activity become more regionalised, universities and colleges, through their resource base of people, skills and knowledge, increasingly play a significant role in regional networking and institutional capacity building. Staff, either in formal or informal capacities, can act as regional animators through representation on outside bodies ranging from school governing boards and local authorities to local cultural organisations and development agencies. (Storper, 2005).

Higher education institutions in Kenya also act as intermediaries in the regional economy by providing, for example, commentary and analysis for the media. As such, they make an indirect contribution to the social and cultural basis of effective democratic governance, and ultimately, economic success through the activities of autonomous academics (Storper, 2005). A key challenge is to enhance the role that universities and colleges play, through their staff and students, in the development of these networks of trust and civic engagement, and hence in the wider political and cultural leadership of their localities. (Deetya, 1998)

This new environment confronting universities and colleges from within higher education and from regions contains important implications for institutional management. In the past, higher education in most countries was primarily funded by national governments to meet national labour-market needs for skilled manpower and to provide a capacity to meet national research and technological development needs of the students. In terms of higher education management, this has generally meant a single paymaster; relatively secure long term funding; the education of a readily identifiable and predictable population of full-time students in the 18±24 year age range, destined to work in the corporate sector and public service; and the provision of a well-founded infrastructure to support the pursuit of individual academic research and scholarship (Storper, 2005).

Such a regime imposed limited demands on institutional management and indeed supported the ethos of academic self-management and collegiality. The new agenda in higher education requires universities and colleges to act corporately and to respond to the demands of a new and diverse set of clients and agencies representing them, many of whom are directly or indirectly concerned with regional development (Amin and Thrift, 1994).

3 Local Government in Achieving the Higher Education Needs

Higher education institutions have always contributed to the social and cultural development of the places in which they are located. However, the emerging regional development agenda can be argued to require regional engagement to be formally recognised as a “third role” for universities and colleges not only sitting alongside but fully integrated with mainstream teaching and research. (Sabel et al, 1989)

Therefore the requirements for regional engagement embrace many facets of the “responsive higher education institution” that are being generated by evolving priorities within the higher education system. These priorities all come under the following heading: meeting the various needs of a more diverse client population. Among these needs are relatively new demands such as flexible
structures for lifelong learning created by changing skill demands; more locally based education as public maintenance support for students’ declines; greater links between research and teaching; and more engagement with the end users of research (Deetya, 1998).

An in-depth interrogation of the role that sub-national governments are currently playing will enable a careful examination of the ways and means that their contribution can be made more effective. There are four principal means by which this can be achieved, prudent management of scarce resources; strong administrative, management and other capacities; inter-governmental transfers, and effective coordination between the tiers of government (Lundvall and Johnson, 1994).

Prudent Management of Scarce Resources

Resources are scarce and even more so in many African countries. As a consequence of Decentralisation, sub-national governments are controlling a sizable proportion of these resources. In Tanzania, local government authorities collect roughly 5 percent of all public revenues and are responsible for about 20 percent of public spending. Hence a key concern is how to ensure that sub-national jurisdiction spending generate the expected outcomes without creating serious distortions, both locally and nationally.

One potential risk of decentralisation is that it could turn into an arena for contest over the distribution of rents, fight for local influence and power and leads to increased elite capture, clientele-, patronage and corruption, which reduce the effectiveness of spending. Also, growing expenditure responsibility of sub-national can dim central government’s attempts to meet macroeconomic policy targets that are in line with long-term development strategies. Suppose that the central government recognises the existence of absorptive capacity and supply constraints, and therefore sets out paths for spending and monetary supply growths that are consistent with preserving competitive real exchange rate (Reeg and Kazis, 2000).

Growing expenditure and borrowing responsibilities by sub-national governments, could result in the breaching of the identified macro targets. In addition to this, the implementation of sub-national government spending decisions can result in adverse effects, such as congestion effects and beggar-thy-neighbour outcomes. The challenge is therefore for the national governments to strike a judicious balance between responding local needs and minimising the risk of adverse macroeconomic outcomes that could arise from their raising spending limits (Gupta and Tareq, 2005).

The Council in Capacity Building and Management

Central public expenditure management (PEM) systems often display serious flaws, and such weaknesses are even more acute at national levels. Limited managerial, technical and financial capacities reduce the ability of sub-national government institutions to effectively commit and administer MDG-related expenditure. Even if technical and financial constraints are addressed, little monitoring and evaluation mechanisms, instigated in part by human capital constraints, political manipulations and inadequate procedures and rules, such as the use of outdated accounting systems and/or the lack of a harmonised system of budget classification and accounting for all levels of government, limit transparency and accountability in public spending management. This reduces the potential of Decentralisation to translate public spending into improved social outcomes (Amin and Thrift, 1994).

There is a need to improve capacities of the national governments to formulate, execute and report public expenditure programmes. This requires transferring and building sound budgetary institutions, which include adequate and well-trained personnel, harmonised and up-to-date system of budget classification and accounting for all levels of government, and effective monitoring, evaluation and control systems.

Economically, Kenya has experienced several years of solid economic growth (>5%). Although Kenya is a Middle Income Country and may become a Higher Middle Income Country,
it has large differences in income distribution and still faces considerable challenges reaching its 
poverty reduction goals. Developments in higher education require the Government to re-evaluate 
target intervention strategies.

The (needs) analysis and discussions with stakeholders have resulted in the formulation of a 
set of objectives for activities in the years to come and their longer term effects (outcomes). The 
identified projects will contribute to the realisation of these objectives. At the same time the analysis 
has provided information that may serve as an indication of the present situation in the areas of 
target intervention regarding (education and training) capacity needs. These data serve as for indications 
for measuring the progress in achieving the objectives in the years to come.

Three integral components are important in the programme: strengthening the post-secondary 
education and training capacity, contributing to the improvement of the living conditions and 
position of women and girls (gender), and linking education and training to the labour market. In 
the programme these objectives are (to be) linked. For all areas, skills development is critical. In all 
projects these objectives will be linked as much as possible. (UN-ECA, 2008)

Important issues that come up time and again when discussing the challenges impeding 
knowledge management capacity building at the higher academic and research institutions in the 
region reafirm the need for a concerted effort from both internal and external players to move 
the bar higher. Inadequate training funding budgets, lack of well designed training programmes; 
inappropriate or non-existent policies; lack of management commitment and institutional 
environments that have minimal e-Readiness to foster implementation of the programmes are major 
issues identified as hampering effective capacity building in the local government at institutions in 
the region experienced during the intergovernmental E-resources training programmes for higher 
education in many of the countries.

**Funding**

Without the required funding budgets allocated for capacity building in the local government all 
great ideas, good intentions and splendid plans will not yield anything. No doubt, highly trained 
staff is a key building block to the delivery of quality research output and competitive graduates 
which are the bottom line issues of the research and higher academic institutions. Many of the 
written and much publicized organisational visions and missions attest to these outputs.

External funding sourced by the local government and partners is used to cater for the training 
resource persons’ time, travel, workshop logistics and participants’ subsistence during the delivery 
of the Training-of-Trainer courses. Selected local universities and research institutions host the 
week-long workshops attended by 25-30 professionals. Only 30-35 percent of the universities and 
research institutions have gone on to support institutional trainings after the trained economic 
opportunities and institutions return from the courses. A smaller percentage (3-5%) have supported 
their staff training in the local government TOT courses since the course series inception in 1999 in 
terms of registration (tuition) fees, travel and subsistence costs. Reports by course graduates point 
to the lack of institutional support and budgets to support their efforts in imparting the acquired 
knowledge to their colleagues and local government clients across the institutions.

**Training**

The development of innovative training programmes with appropriate content aimed at addressing 
the staff skills gaps according to the needs of the staff and matching their professional portfolios 
and assigned duties. The courses must be tailored to add to previously attained skills and practical 
 enough to help the staff tackles the problems at hand and in their line of work avoiding the case of 
investing in irrelevant courses that limits the return on this investment.

**Supporting policies**

Lack of relevant and appropriate institutional policies to promote the role of the local government 
and its services and address staff development programmes at the institutions is still a challenge at
some of the institutions in the region. A practical example that we came across is where a institutions
may have programmes promoting such ICT policies on requirements for researchers, institutions
and students to deposit and archive electronic copies of research papers, theses and dissertations
in institutional repositories and databases but without overall university level supporting aligned
policies, the implementation and practice of such critical strategies is difficult.

Management/leadership commitment
Management buy-in and realising the important role of the local government and their contribution
to the overall agenda of the organisation and showing this support through supportive policies
and prioritising local government and capacity building budgets. Many of the hosting universities
principal officers and Institute directors take time to officially open the training courses which
encourages and gives prominence to the courses. Unfortunately these great gestures have not yet
translated into positive decisions on local government budgets and policies at many of the research
and higher academic institutions that these courses have been delivered.

E-Readiness
The institutional environment needs to support the continued development of the local government
and personnel’s skills improvement in order to have the capacity and motivation to deliver high
quality services in a robust electronic environment. Until the institutions’ e-Readiness improves
efforts by the professionals to leverage ICT tools such as digital local government facilities,
Institutional repositories and virtual collaborating spaces will not bear much result. Cole (2005)
asserts this point well in his five point e-Readiness investment plan recommended specifically for
universities which includes:

4 Coordination and Policy Coherence for Betterment
As Decentralisation requires a transfer of administrative and fiscal responsibilities and therefore the
involvement of a large number of public actors, local and central, it might give rise to potentially
horizontal and vertical coordination problems among those agencies. This is true when there are no
systemic multi-tiered coordination mechanisms or if those mechanisms do not function effectively.
In such circumstances, the centre tends to retain a greater control over revenue and expenditure
decisions, particularly in countries with decentralised unitary systems. The situation is significantly
different in federal system countries, where sub-national jurisdictions often strongly resistant to
moves from the centre that could limit their autonomy of action.

Vertical regulation mechanisms are essential for monitoring and ensuring that different levels
of government fulfil their responsibilities and authority. They bring some clarity between different
tiers of government and contribute to aligning local policies and interventions to the national ones.

Such mechanisms also allow the priorities set out in MDG-consistent national development
strategies, which should derived from national consultative processes and therefore representing
the aggregation of local priorities, to be translated into sub-national planning and budgeting. These
regulation mechanisms often take the form of Fiscal Responsibility Law, which is applicable to all
spheres of government. Adopting a Fiscal Responsibility Law alone is not sufficient to bring about
policy coherence. To be effective, the law should convey an appropriate mix of incentives and
sanctions as shown in Brazil and the US (Afonso, 2004).

Coordination mechanisms between different tiers of government contribute to building
consensus on current and emerging issues, setting priorities and agreeing on a shared programme
execution.

The medium term expenditure framework (MTEF) provides a strategic tool to articulate and
integrate local and central government priorities, thus playing a key coordinating role in setting
spending priorities. Other coordination mechanisms are needed on the revenue side. They are
essential in working out agreement between central and sub-national jurisdictions as to the levels of
Revenue to be raised by each level and the amount of transfers needed to fill potential gaps between revenue and expenditure assignments. Similarly, they facilitate the design and implementation of simple guidelines for local taxes, thus limit the expansion of inefficient local tax instruments.

Further, coordination between different spheres of government is also necessary to ensure an articulation between fiscal policy and monetary and exchange rate policies. These coordination mechanisms provide platform to discuss possible relaxation of macroeconomic policy targets so as to allow increased expenditures in human capital, infrastructure and other productivity-enhancing activities. Since achieving the Higher education needs may require more expansionary fiscal and monetary policies than the current stances, this platform provides an opportunity to lay out innovative policies and interventions needed to dampen potential inflationary pressures and real appreciation associated with rising spending, exploring ways to address, both at the central and sub-national levels, short-term supply constraints, for instance through increasing the import content of additional spending and better using goods and services in excess supply.

Drawing on the above discussion, a number of issues, critical for understanding and enhancing the contribution of sub-national governments to efforts to achieve the Higher education needs in Kenya, need to be further explored. Among these are:

1. **Fiscal policy at the sub-national level**: One of the few policy instruments at the disposal of sub-national governments is fiscal policy, which has important allocative and distributive functions. Given these key features, it will be worth assessing experiences in fiscal policy practices at the sub-national levels across various political systems and their effects on the potential of sub-national jurisdictions to achieve the Higher education needs.

2. **Constitutions as a coordination constraint**: Coordination problem among the heads of the Government dealing with education poses a serious constraint to policy coherence. Reviewing the constitutions of countries, with different political systems and at different stages of Decentralisation, would help understand the role of constitution as a coordination constraint. It will also be important to interrogate the effectiveness of institutions in countries designed to minimise the risk of coordination failure and ameliorate “hard divisions” established by the constitution between tiers of government in the economic sphere.

3. **Capacity constraints**: Building adequate capacities at the sub-national level to carry out larger responsibilities and interact with the centre are key to the success of the Decentralisation in achieving the Higher education needs. The discourse on the contribution of sub-national governments will greatly benefit from understanding their Higher education needs-specific capacity constraints and exploring how best they could be attenuated.

4. **Disparities terms of progress toward the Higher education needs**: The importance of understanding the role and contribution of sub-national governments to efforts to achieve the Higher education needs in Kenya is even more compelling when set against within-country differences in progress toward the Higher education needs in the country. It will be vitally important for policy development and implementation to review, for a number of African countries, the situation of sub-national entities with respect to achieving the Higher education needs, using readily available household survey data.

In response to these challenges, the local government in the last 12 years has taken the lead in undertaking several training initiatives to enhance innovation and competitiveness in scientific and technical research in collaboration with other international and local players interested in building capacity at research and higher academic institutions in the region focusing on improving local government services.

One such programme is the local government’s involvement in the promotion, training and support for digital local government resources (e-resources) focusing on the access and use of such resources like The Essential Electronic Agricultural Local government (TEEAL) (www.teeal.org),
A Journal of the Management University of Africa

Research4Life and PROTA (www.prota.org). These interventions tailored to suit the specific needs of each group support the organisation’s broader objective of building the ICT/ICM skills of African economic opportunities, information management specialists, institutions and researchers.

Several other initiatives have invested in different ways trying to address the capacity building challenges from different angles as shown in Table 1.

**Table 2: Local government Capacity Building Initiatives**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Initiative</th>
<th>Strategic Partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Council of Nairobi</td>
<td>Programme for the Enhancement of Research Information (PERI)</td>
<td>Key stakeholders including researchers, economic opportunities, publishers, ICT professionals and policy makers</td>
</tr>
<tr>
<td></td>
<td>Now in its 10th year the programme Focuses on the needs of people in developing and emerging countries; PERI works with partners to support global research communication by further strengthening: the knowledge and skills of people working in research communication participation in international knowledge networks research communication policy and practice.</td>
<td>Professional Associations, National Research and Education Networks (NRENs), Learned societies and Academies and other sister organisations</td>
</tr>
<tr>
<td>Local Government of Kenya</td>
<td>The Africa Unit-The concept of the Africa Unit is rooted in the conviction that Africa's institutions of higher and further education must be at the heart of any sustainable effort to rebuild and revitalise the continent, and that if Africa's institutions are to play this role a major and sustained programme of renewal must occur. This approach, following the G8 Africa Action Plan, is to promote the creation of partnerships to support the research and higher education capacity of Africa.</td>
<td>ACU works at promoting linkages between African and European Universities</td>
</tr>
<tr>
<td>Ministry of Education</td>
<td>Higher Education and Local government in Africa-The main Objectives of the Ministry of Education in Kenya are to enhance the capacities of educators, researchers and higher academic leaders in selected countries; to improve the use of ICTs in teaching, research and management and to create public and university local government to deepen higher academic research and public access to information and knowledge. These goals represent integrated pathways toward strengthening the next generation of higher academics and university leaders in Kenya.</td>
<td>Universities and public local government in Kenya for example University of Nairobi and Local government Leadership programme.</td>
</tr>
<tr>
<td>Kenya Medical Association</td>
<td>E-resource training in Health Information The aim of this initiative is to address the vast information resource inequity existing between different regions of the world.</td>
<td>Institutions including universities and NGOs such as the local government.</td>
</tr>
</tbody>
</table>

**The Local Government’s E-Resources Training-of-Trainer and Workshops Audience**

Since 1999, the local government in partnership with local universities and research institutions has organised and delivered about eighty (80) training-of-trainer courses on E-resources training spanning 38 countries at an average of seven workshops per year. The workshops have to date reached 1 760 economic opportunities, researchers and higher academics cascading the skills gained.
to an estimated 15,000 individuals downstream. Economic opportunities form the majority of professionals trained during these workshops followed by lecturers and researchers as Figure 1 below depicts. To strike a gender balance and encourage the participation of more women in scientific research, the local government aimed for a balance of 50 percent for female attendants. However out of a total of 1,760 (589 have been female), a 34 percent female participation was achieved.

5 Conclusion and Recommendations

While building local research continues to be a challenge, such capacity building interventions by the local government, its partners and many other similar initiatives which have been undertaken over the years seem to contribute significantly to the research and higher academic communities in the region by focusing on building and strengthening local government skills and services. IT and Internet infrastructure need to be upgraded and updated, the ratio of computers accessible by researchers’ needs to improve and bandwidth costs reduced to affordable levels in order to support the institutional e-environment.

The issues of funding, aligned and relevant policies, management commitment and the institution’s e-Readiness cannot be left out if the challenges of capacity building are to be tackled effectively. Overall, the culture of research must increasingly be promoted across the different disciplines for continued tangible new knowledge generation that will positively impact on social and economic development in the region. These the local government e-resources courses continue to empower economic opportunities and other information brokers and contribute significantly to the building of ICT/ICM capacity of institutions, researchers and students in the research and higher academic institutions. These training programmes play an important role in influencing innovation and competitiveness in Sub-Saharan Africa.

Table 3: Regional Decentralisation in Higher Education

<table>
<thead>
<tr>
<th>Regional Decentralisation in Higher Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Compensation</td>
<td>Negotiated and funded centrally, administered regionally.</td>
<td>Federal government—with some input from the states—negotiates salaries</td>
</tr>
<tr>
<td>Teacher Recruitment</td>
<td>Regional governments under central guidelines.</td>
<td>State government</td>
</tr>
<tr>
<td>Principal Recruitment</td>
<td>Regional government</td>
<td>State government</td>
</tr>
<tr>
<td>Regional School Finance</td>
<td>Regional governments create budgets from centrally transferred general resources and revenue sharing.</td>
<td>10 to 15% of funds.</td>
</tr>
<tr>
<td>Local School Finance</td>
<td>Funded centrally with some regional additions and school feeds</td>
<td>Funds are subtracted automatically from Federal revenue sharing funds to localities. While a few local governments support capital projects, they generally do not provide additional own-source revenues</td>
</tr>
<tr>
<td>Allocation of Budget</td>
<td>Schools are “not authorised to procure inputs under any circumstances,” although both woredas and schools “demonstrated capacity to monitor budgets, manage personnel, and undertake monitoring and evaluation.”</td>
<td>Localities with some input from schools, though in fact dictated in large part by centre.</td>
</tr>
<tr>
<td>School Construction</td>
<td>Funded centrally, administered regionally with some input from schools</td>
<td>Localities officially responsible for school construction, but both the Federal and the state – levels claim they have this function and the localities only rarely receive capital investment funds.</td>
</tr>
</tbody>
</table>
6 References


Lundvall (1992). regional prosperities compared: Massachusetts and Baden-Wu¨rttemberg in the 2000s, Economy and Society, 20


Morgan (1998). The Public Role of the University: The Dialogue of Universities with their Stakeholders: comparisons between different regions of Europe


15

The Effect of Contextual Factors on Risk Underwriting Decisions in Insurance Industry

Mudaki, Abisay Lumosi and Maluti, Lucania Vincent (Masinde Muliro University of Science and Technology, Kenya)

1 Abstract

In insurance industry, risk underwriting decisions are informed by assessment of size of insurance cover, acceptability of risk and ability of payment of premium by insured. Risk underwriting decisions as a process has been influenced by contextual factors like organisational culture, type and size of firms and employee literacy level. However, insurance firms have continually performed poorly in the Kenyan market since 1985. So far, there is still limited information as regards this trend and hence the study. The objective of the study was to establish the extent to which contextual factors affect risk underwriting decisions. The study adopted a descriptive census survey design. The population was 40 registered insurance companies as at August 2010. Reliability of the results was determined by the test-retest approach. Validity of the research instrument was established by using two firms outside the target population. Data was analysed using descriptive statistics and inferential statistics. The hypothesis was tested using simple regression coefficient at 95% confidence level. The study shows that contextual factors have no relationship with risk underwriting decisions.

Keywords: Premium, Insurance, Risk, Underwriting

2 Background

Due to life uncertainties, there has evolved an ever increasing need to operate in an unfamiliar environment with confidence. This uncertainty (risk) has been fulfilled by specialised firms which enter into a contractual agreement (policy) with a client (insured or policy holder) by paying a certain fee (premiums) in return for compensation (indemnity) in the event of a loss (peril). These organisations are called insurance firms. Insurance coverage has been used to mean the size (amount) of cover purchased per individual or property. Insurance companies earn investment profits on float or available reserve. This is the amount of money at hand at any given moment that an insurer has collected in insurance premiums but has not been paid out in claims. How these profits are earned, and in what volumes, seems to be tied to underwriting decisions which are a function of contextual factors.

Insurance in Kenya

In the last twenty five years, the insurance industry in Kenya has witnessed a lot of changes. A total of six insurance firms have either collapsed or are still under statutory management. These include: Kenya National Assurance Company, United Insurance Company, Lake Star Assurance Company, Standard Assurance, Access Insurance Company, Stallion Insurance and Invesco Assurance. On average, the trend is such that one insurance firm collapses or is placed under receivership after
every four years. These organisations vary in culture and type and thus complicating the diagnosis of the real cause of their collapse or being placed under statutory management.

The Government of Kenya subsequently responded to this worrying occurrence by establishing the Insurance Regulatory Authority (IRA) which is the prudential regulator of the insurance industry in Kenya. Formerly the Department of Insurance, IRA became autonomous on 1st May, 2007 through an Act of Parliament. IRA is also responsible for supervising and developing the insurance industry in collaboration with other stakeholders such as agents and brokers. Other changes include the establishment of certificate of proficiency (CoP) examination as a minimum requirement for licensing insurance agents and insurance brokers as from 1998.

Despite all these rigorous measures since then, due to mismanagement; insurance companies have continued to go under with clients’ premiums uncompensated. This prompted the need for a compensation scheme that would fill the void of relieving policy holders, at least partially for losses suffered when an insurance firm collapses. This scheme was also to promote confidence in the industry. To actualise this idea, a Policy Holders’ Compensation Fund (PHCF) was established in 2004; whose operations commenced on 1st January, 2005. From its inception to date, no firm has met the entire requirement set out by PHCF to be declared insolvent for its affected clients to be compensated. However, it is envisaged that these changes and the ongoing review of the Insurance Act will promote uptake of insurance, provide security to stakeholders and develop the insurance industry as a whole.

3 Conceptual Framework

The contextual factors formed the independent variable whereas risk underwriting decisions was the dependent variable. The dimensions that made up the contextual factors were; organisational culture, type of firm and employee literacy. Risk underwriting decisions were informed by size of insurance cover, acceptability of risk and ability of premium payment by the insured.

4 Reviewed Literature

Organisational Culture

Organisational culture refers to the way a firm conducts its business in a way that differentiates it from others. This encompasses vision, mission, values, beliefs and company structure among other things. Each firm has its unique culture. Some firms embrace a wait-and-see approach to business whereas others adopt organisational learning. Further, some firms adopt a learning organisation approach as a culture which develops due to pressure from the external environment. A learning organisation facilitates the learning of its members and continuously transforms itself (Beardwell and Claydon, 2007). This is an organisation that seeks to create its own future. This is achieved by having highly developed systems for all its functions, developed human resource, shared vision and embraces team learning (Suganthi and Samuel, 2008). Such an organisation, adopts a pro-active approach in all its activities and as such it is likely to recoup whatever resources it had invested in any venture before those organisations that have adopted the wait-and-see approach. For instance, Kenya experienced post-election violence in the period between 2007 and 2008. So far, very few insurance companies have taken the initiative of designing products to provide compensation to the public in case of a similar occurrence in future.

The researchers’ view is that organisational culture should be flexible so as to adapt to current dynamic business environment in order to remain relevant. This characteristic would enhance quality decisions that will boost sales and hence performance. This kind of flexibility occurs in an organic structure type of organisation as pointed out by Bateman (2007). Higher education further argues that this structure is less rigid and emphasises flexibility. The core competencies of such a firm include; its strategic alliances, its ability to learn and its ability to engage all stakeholders in the organisation to achieve its objectives and goals.
Corporate Image

Bag (2008) argues that corporate image has to do with goodwill, brand equity and reputation. A corporate image is the sum total of the impressions that stakeholders like customers, vendors, employees, and the public hold about the company in other words the reputation. This theory has made many assumptions about the consequences of a good corporate reputation. There is evidence of the effect of a positive corporate reputation on the firm's future financial performance by means of a more differentiated concept of reputation. The overall assessment of reputation is differentiated into a part that is explained by past financial performance and an idiosyncratic part to control for the effect of past performance on today's reputation. Both the cognitive and the affective reputation dimension significantly influence future financial performance after controlling for past performance (Markus and Schwaiger, 2005). Bag (2008) further states that the ideal corporate image should be managed to become congruent. This implies that what the public see is what the organisation is.

Beardwell and Claydon (2007) argue that data can be gathered to provide a snapshot of the current situation within the organisation in order to identify current strengths and weaknesses. The information on organisations includes; productivity and service levels, turnover and profitability. These can be measured at organisational level. Armed with this analysis, the management of an organisation is able to examine the extent to which the current workforce, job design and reward systems enhance or restrict productivity and overall organisational performance. The sum of all corporate impressions that form the corporate image is sometime referred to as a company's brand equity. The resultant effect is that the organisation creates a more loyal customer base, a more productive workforce and more organisational profitability.

Type of Firm

The type of firms include composite firms where both life insurance and non-life insurance products are sold and non-composite firms in which one line of insurance business is pursued. Companies that deal in one line of business are likely to give their customers a high value of their money in terms of quality of the product, price and after-sales service. This will translate into high overall organisational performance. However, one line-business suffers from over dependence on one type of products thereby exposing itself to adverse effects in the event of poor performance. Composite companies have the advantage of spreading their business risk but the other hand; they may experience difficulties in resource allocation as regards product and human resource development. In some instances, one line of business may post some profit which is eventually wiped out by the second line due to losses made. This in turn may affect the quality of the output, and the overall efficiency of the organisation.

Employee Literacy

Companies invest in training to enhance individual performance and organisational performance. By so doing, organisations help their workforce to adapt to the complexity of jobs as a result of technological developments and for interactions between individuals who have different values and who come from different cultures. It is important for the organisational management to practice a mix of both approaches to decision making where applicable. This would enhance sales activities and hence performance. Bateman (2007) states that promoting employee literacy brings about a number of reputed benefits including lower employee turnover, increased morale and better productivity. These changes will result in the need for training systems to maximise the potential of each individual, including basic skill and support programmes for unskilled young people who will need to perform more cognitively complex tasks. Training will also be necessary to help managers work with a more diverse workforce including helping individuals understand how to provide support for persons who have not traditionally been a part of their work organisation. Beardwell and Claydon (2007) state that the financial position of an organisation can impact significantly on
recruitment and selection practices. Financial constraints can forestall the investment in training and development necessary to tap the potential of the internal labour market, with decision makers seeing training budgets as costly. A developed human resource in an organisation is a competitive advantage in a dynamic business environment. An organisation is therefore able to perform good risk underwriting decisions by using the expertise of its developed human resource effectively.

**Risk Underwriting Decisions**

A risk is an insurance product that is being offered by an insurance firm to the insuring public (the insured). The products fall into two classes; thus life insurance and non-life insurance. On the other hand, underwriting is the process of selecting and evaluating insurable risk. The primary objective of underwriting is to guard against adverse selection. Each company has its guidelines on risks underwriting decisions. These include conducting or ordering for a medical examination of the prospective insured and examining the property status. However, almost no decision that is arrived at in an organisation (insurance firms included) is made by one person despite the fact that the ultimate responsibility for taking such action shall be shouldered by some specific individual. This means that a decision is a phenomenon formed by several components which can be tracked down through several peoples’ communication channels that are both formal and informal (Simon, 1997). However, the influence of such individuals involved in formulating such decisions will greatly be dependent on the degrees of influence and amount of discretion that is allowed these people. At the tail end of the decision making process, it is not surprising to realise that the contribution of the individual who made the final formal decision was so insignificant.

Hill (2001), states that a firm’s vertical differentiation determines where in its hierarchy the decision-making power is concentrated. For example, are production and marketing decisions centralised in the upper-level managers, or are they decentralised to lower level managers. There are arguments for centralisation and others for decentralisation. Hill further says that centralisation can facilitate coordination. Centralisation can help ensure that decisions are consistent with organisational objectives. When decisions are decentralised to lower level managers, some decisions that are at variance with top strategic goals may be made. Centralisation of important decisions minimises the chance of this occurring. Centralisation can avoid duplication of activities by sub-units within the organisation. Centralisation provides a means for management to bring about desired changes easily. Hill (2001) further says that decentralisation lessens the burden of decision-making on top management. Decentralisation gives top management the time to focus on critical issues. It also motivates the employees in that they can make decisions. It also increases accountability in lower level managers. It brings about better decisions since decisions are made closer to the spot by individuals who may be having clearer information than managers several levels up in the hierarchy. Decisions that are made in a relatively short time enhance the overall organisational performance.

**Company Profitability**

An insurer’s underwriting performance is measured in its combined ratio which is the ratio of losses and expenses to earned premiums. A combined ratio of less than 100 percent indicates underwriting profitability, while anything above 100 percent indicates an underwriting loss. Beardwell and Claydon, (2007) argue that profits made by an organisation should translate into more benefits for staff and customers. The author further believes that employee attitudes are favourably affected in the sense that employees have increased their identity with company goals, feel more involved and have a positive attitude towards the company. Indeed, the most important impact of profit sharing is almost certainly to improve organisational performance.

**Number of Products**

The number of products of any insurance firm may be referred to as the risks on offer. All these products are formulated with the client in mind. Market-driven products are aimed at satisfying
varied clientele needs. Learning organisations are bound to take the lead in product innovation as a competitive advantage and therefore improve their overall organisational performance. In a complex adaptive environment, leaders must create an environment in which employees feel trusted and empowered to make decisions. Interconnectivity results in information that is easier to get, and customers can make competitive comparisons more easily. In addition, a sales organisation that focuses on learning increases its intangible assets, which may be the only way it can remain competitive. A possible functional relationship between sales performance and factors relating to individual motivation, resistance to change, and a sales organisation’s structure and strategy may exist that represents the concepts of change management within the viewpoints of an Internet-driven world and of contemporary management. The number of products offered by an organisation can be used as one of the pointers to its development.

5 Findings and Discussion

Table 5 below shows the responses on dimensions of contextual factors.

Table 5: Percentage Frequencies of Contextual Factors

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Designs of Customer-oriented Products</td>
<td>8</td>
<td>8</td>
<td>12</td>
<td>48</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>Encouragement of Inter-Dept. Cooperation</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td>48</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Firm Deals in Various Insurance Classes</td>
<td>16</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>64</td>
<td>100</td>
</tr>
<tr>
<td>Recruited Staffs have Relevant Qualifications</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>52</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Merit is followed to Deploy Staffs</td>
<td>0</td>
<td>12</td>
<td>8</td>
<td>60</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree

The results in Table 5.1 above show that respondents at 92 percent concur that employees with the requisite qualifications are recruited while the largest number of respondents who strongly disagree with the dimensions of the contextual factors are 16 percent (firm deals in various insurance classes).

Table 6: Mean Score Summary of Contextual Factors

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>N</th>
<th>df</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation designs customer oriented products</td>
<td>25</td>
<td>24</td>
<td>3.72</td>
<td>1.173</td>
<td>.000</td>
</tr>
<tr>
<td>Organisation encourages inter-dept. cooperation</td>
<td>25</td>
<td>24</td>
<td>4.08</td>
<td>.954</td>
<td>.000</td>
</tr>
<tr>
<td>Organisation deals in various insurance classes</td>
<td>25</td>
<td>24</td>
<td>4.00</td>
<td>1.555</td>
<td>.000</td>
</tr>
<tr>
<td>Recruited staff has relevant qualifications</td>
<td>25</td>
<td>24</td>
<td>4.16</td>
<td>1.068</td>
<td>.000</td>
</tr>
<tr>
<td>Merit is followed to deploy staff</td>
<td>25</td>
<td>24</td>
<td>3.88</td>
<td>.881</td>
<td>.000</td>
</tr>
</tbody>
</table>

1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree

The mean score of all the dimensions of contextual factors (Table 5.2) shows that respondents agreed with the dimensions. However, the highest mean score of 4.16 was recorded under firms recruiting staffs who had relevant qualifications. The least mean score (3.72) was obtained under organisations designing customer oriented products.
Table 7: Percentage Frequencies of RUDs

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underwriter Determines the Size of Insurance</td>
<td>12</td>
<td>20</td>
<td>36</td>
<td>28</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>The Insured Determines Size of the Insurance</td>
<td>0</td>
<td>12</td>
<td>16</td>
<td>12</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>Customer's Health Determines Risk</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>40</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Property Status Determines Risk</td>
<td>0</td>
<td>4</td>
<td>24</td>
<td>40</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>Premiums Determined by Health Status of Client</td>
<td>12</td>
<td>0</td>
<td>20</td>
<td>36</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>Premiums Depend on Condition of Property</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>68</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Economic Activity of Client Determines Premiums</td>
<td>20</td>
<td>16</td>
<td>32</td>
<td>28</td>
<td>4</td>
<td>100</td>
</tr>
</tbody>
</table>

1 = Not at All, 2 = Small Extent, 3 = Moderate Extent, 4 = Great Extent, 5 = Very Great Extent

Table 7 shows that while 68 percent respondents agrees to a great extent that premiums depend on condition of property, 20 percent concurs to a very great extent. It was noteworthy that 60 percent to a very great extent agrees that the insured determined the size of the insurance while 20 percent does not agree at all that the economic activity of a client determined premiums.

Table 7: Mean Score Summary of RUDs

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>N</th>
<th>df</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underwriter determines the size of insurance</td>
<td>25</td>
<td>24</td>
<td>2.92</td>
<td>1.077</td>
<td>.000</td>
</tr>
<tr>
<td>The insured determines the size of the insurance</td>
<td>25</td>
<td>24</td>
<td>4.20</td>
<td>1.118</td>
<td>.000</td>
</tr>
<tr>
<td>Customer's health determines risk</td>
<td>25</td>
<td>24</td>
<td>4.00</td>
<td>1.000</td>
<td>.000</td>
</tr>
<tr>
<td>Property status determines risk</td>
<td>25</td>
<td>24</td>
<td>4.00</td>
<td>.866</td>
<td>.000</td>
</tr>
<tr>
<td>Premiums determined by health status of client</td>
<td>25</td>
<td>24</td>
<td>3.76</td>
<td>1.268</td>
<td>.000</td>
</tr>
<tr>
<td>Premiums depend on condition of property</td>
<td>25</td>
<td>24</td>
<td>4.04</td>
<td>.676</td>
<td>.000</td>
</tr>
<tr>
<td>Economic activity of client determines premiums</td>
<td>25</td>
<td>24</td>
<td>2.80</td>
<td>1.190</td>
<td>.000</td>
</tr>
</tbody>
</table>

1 = Not at All, 2 = Small Extent, 3 = Moderate Extent, 4 = Great Extent, 5 = Very Great Extent

The mean score of RUDs in Table 7 above indicates that at 4.20, the insured determined the size of the insurance recorded the highest score (respondents agree to a great extent) while the dimension that the economic activity of a client determined premiums recorded the least (2.80), thus, respondents agree to a moderate extent.

The following null hypothesis was set to test the study data:

\[ H_0 = \text{Contextual factors have no effect on RUDs.} \]
Table 8: Regression Coefficients of Contextual Factors on RUDs

Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.130</td>
<td>.017</td>
<td>-.026</td>
<td>.31008</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Aggregate Mean Score of Contextual Factors

Coefficients

<table>
<thead>
<tr>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.407</td>
<td></td>
</tr>
<tr>
<td>Aggregate Mean Score of Contextual Factors</td>
<td>.101</td>
<td>.130</td>
</tr>
</tbody>
</table>

The regression coefficient beta (r = .130) at a significance level = .535 as in Table 8 led to the failure in rejecting $H_0$ since the obtained $p$-value was > 0.05. The $r^2 = .017$ indicates a very weak explanatory power of contextual factors on RUDs.

When individual dimensions of contextual factors were regressed against RUDs, all except ‘merit is followed to deploy staffs’ registered an effect that was statistically significant (inverse). Thus, beta (r = -.445, $p$-value = .046).

Table 9: Regression Coefficients of Dimensions of Contextual Factors on RUDs

Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.551</td>
<td>.304</td>
<td>.121</td>
<td>.2871</td>
</tr>
</tbody>
</table>

Predictors: (Constant) Merit is followed to Deploy Staffs; Organisation Deals in Various Insurance Classes, Organisation Designs Customer Oriented Products, Recruited Staff has Relevant Qualifications, Organisation Encourages Inter-Dept. Cooperation

Coefficients
### 6 Conclusion

This paper concludes that there is no effect of contextual factors on RUDs. However, the only dimension that has a statistically significant effect on RUDs is merit that is followed to deploy staffs.

### 7 References


1 Abstract

Purpose
The study described in this paper develops an evaluation model aimed at investigating the role of knowledge management in high performance organisations.

Design/methodology/approach
A comprehensive review of theory, research and practices on knowledge management and high performance develops a model that forms the basis of the study. The model was operationalised in financial institutions in Uganda, and was used as the basis to develop the hypotheses that are tested in the study.

Findings
Suggests that competitive advantage is a significant predictor of high performance and that the knowledge management may influence high performance indirectly.

Original
Among the few empirical studies relating knowledge management and its integration in financial institutions for achieving sustained competitive advantage and high performance.

Limitations
The study used a small sample which limits the generalisation of the results to other developing countries.

Practical implications
The results may provide a sound basis for making an analysis of knowledge management behaviour and high performance in financial institutions in developing countries.

Keywords: Knowledge management, knowledge based theory, high performance organisations, Uganda.

2 Introduction

Increasing competition and globalisation of financial institutions has catapulted the efficacy of knowledge management in their operations (Ali and Ahmad, 2006; Butod, 2008). Which importance is emphasised by the call from the World Bank to integrate the concept in financial institutions management and processes.
In this paper we discuss an assessment model which looks at knowledge management in terms of knowledge acquisition, knowledge dissemination and responsiveness to knowledge, as part of the variables that lead to advancing financial institutions to high performance organisations (HPO). The paper also discusses how each of these elements can be integrated so that high performance can be enhanced in financial institutions, specifically banks in Uganda. The various components of KM are described in detail so as to explain the role and status of knowledge management (KM) in financial institutions operations. The effective knowledge management is expected to create a culture that promotes and encourages KM to flourish in the banking sector, leading to increased competitiveness and sustained high performance.

HPO is about sustainable high performance and that is what makes it so difficult to achieve. There are some organisations that perform to a high standard for a couple of years but they are not able to maintain that high level and start slipping eventually, these organisations are not true HPOs!

In order to attain and sustain high performance, an organisation has to effectively manage knowledge, as knowledge is seen as the leading instrument for organisations to achieve competitiveness and perform better than competitors (Lin, 2007; Pathirage et al, 2008). Organisations can only meet the demands of their customers when their employees are knowledgeable about their services and operations. Thus in order to achieve the needed continuous flow of knowledge throughout the organisation, employees need to willingly disseminate and respond to knowledge, Darroch, (2005), and they must have adequate capabilities to do this. In addition, managers need to foster good knowledge management behaviour, which then subsequently can be applied for the benefit of the organisation (Stuart, 2004). According to Vorakulpipat and Rezgui (2008) a growing number of organisations have introduced KM into their strategies and as a result have reported business process efficiency improvements, better-organised communities, and higher staff motivation.

The study’s main research question was; How does knowledge management improve performance? In particular, how does it improve financial and operational (process) performance? The latter is the question that matters most to many senior managers and executives. They need answers -- and more than one -- that will justify and reinforce the importance of integrating and institutionalising KM in their organisations (Nochols, 2000).

There seems to be a link between KM and high performance, as HPOs find it absolutely essential to move toward a flatter and less hierarchical organisation structure, they are willing to adopt new working practices, and put an emphasis on empowerment, teamwork, learning, and employee participation, which are all traits of knowledge management (Willcoxson, 2000). These traits lead to an ability to adapt to the changing business environment and to improvements in performance and quality of working life. They make offering better services possible, and provide more efficient and effective internal processes (de Waal, 2007).

The research findings described in this paper may provide scholars with examples of competitive advantage on the relationships between KM and high performance. The research also has practical implications, as the results may provide a sound basis for making an analysis of knowledge management behaviour and competitiveness in financial institutions. In this respect, it has been stated that financial institutions in predominantly regional economies such as Uganda, a country in the Sub-Saharan region, ought to focus on KM to advance to HPOs (Okot-Uma, 2007). In this way, these institutions can acquire KM and HPO knowledge from the developed economies that can help them to become and stay more competitive. The knowledge acquired will help their employees to obtain sufficient capabilities which they can disseminate amongst themselves to help each other, especially in financial institutions which are usually keen on obtaining sustained competitive advantage (Kridan and Goulding, 2006). Over 23 percent of the financial institutions in Uganda are commercial banks and greatly contribute to economic growth and employment (The Budget Report, 2010/11). Improving their performance with knowledge management will have great economical impact.

Based on the analysis that will take place within the framework of this research, consultants, professional and students of human resource management can in future devise a model that will
actively provide clear-cut interventions and facilitate the process of advancing and sustaining high performing financial institutions in Uganda. Although the analysis itself will have a ‘solid’ scientific base, it is precisely the contribution of consultants, professionals and students that focus on practically applicable interventions that are in touch with the language and experience of the financial institutions. Before managers of financial institutions are prepared to invest significantly in knowledge management, they need access to best practices, preferably based upon empirical proof in similar businesses. The study may provide financial institutions with information about interventions based on best practices from developed countries.

The study described in this paper aims to investigate the relationships between knowledge management (independent variable), and perceived and objective high performance. It also investigates the moderating effect of competitive advantage upon these relationships. The study addressed issues which have yet to be resolved in existing literature, such as the relationships between knowledge management, competitive advantage and high performance. A special focus of this study is the investigation of these relationships in financial institutions, since little is known about the KM behaviour and practices in these institutions (Ali and Ahmad, 2006; Harlow, 2008). The remainder of the paper is structured as follows. In the next section the theoretical background of the research is described. Literature on HPOs, knowledge management and competitive advantage is discussed and these topics are related to each other. Then, the research questions and hypotheses which were dealt with in the research are reviewed. This is followed by a description of the research approach and the research results. The paper ends with conclusions and the limitations of the study.

3 Theoretical Development

The theoretical model for conceptualising the hypotheses has been summarised and is shown in Figure 1.

Knowledge Management and High Performance Organisations

Knowledge management is a systematic, organised, explicit and deliberate ongoing process of creating, disseminating, applying, renewing and updating the knowledge for achieving organisational objectives. Darroch (2005) and Pillania (2008) have conceptualised KM at the organisational level and propose three dimensions of KM namely: knowledge acquisition, knowledge dissemination and responsiveness to knowledge.

The more valuable, imperfectly imitable and rare the knowledge is, the higher the performance will be (Wijk et al., 2008). Proper KM depends on an organisation’s skill to use its intellectual capital and knowledge resources to gain high performance (Guthrie et al., 2008). Part of this intellectual capital consists of human capital, which in turn, reflects the general skills, expertise, and knowledge levels of the employees in the organisation (Subramaniam and Youndt, 2005). The knowledge
and skills are not only momentarily of importance, but also in the future when employees are assimilating new professional expertise in adjoining areas (Vorakulpipat and Rezgui, 2008). There is a strong correlation between financial performance and the priority organisations place on human capital development.

HPOs are organisations that achieve results (both financial and non-financial) that are better than those of their peer group over a period of time of at least five to ten years (de Waal, 2007; Lawler, 2007). The concept of the HPO has evolved from research with a link between human resource management and organisational performance. It can also be linked to decision-making and action-taking in the organisation (Blenko, and Rogers, 2006). Firms can be divided into high and low performing firms, Walleck et al (1991) as cited in (O'Regan and Ghobadian, 2004). They contend that high performing firms differ to a significant extent in relation to most activities from low firms. High performance businesses are more effective than their competitors at exploiting the collective intelligence and motivation of their workforce. If organisations are to meet their important competitive challenges today, fight off competition coming from new players and successfully execute a growth strategy—they must increase the energy and focus with which they address the workforce capabilities necessary to succeed (Accenture, 2009). Accordingly, it is important to ascertain if there are specific attributes of organisational capabilities that are associated with high performance. It is suggested that knowledge management will support highly structured business processes as well as unstructured knowledge work. Mature processes and technologies will offer solid support for KM while emerging techniques will trigger new thinking about extracting the value from organisational knowledge (Harris, 2006). This leads us to formulate the following hypothesis:

\[ H_2 \text{ Knowledge management is positively associated with high organisational performance.} \]

Knowledge Management, Competitive Advantage and High performance

Knowledge management is important for the competitiveness of a company (Wiig, 2004). An organisation that structurally uses KM will achieve competitive advantage, (Liao, 2009). Therefore Knowledge is recognised as an important weapon for sustaining competitive advantage and many companies are beginning to manage organisational knowledge (Lee and Choi, 2008). Knowledge has replaced other sources of production as the main source of wealth creation. Whereas traditional sources of competitive advantage are fading away and are being copied easily, KM has emerged as the source of sustainable competitive advantage (Pillania, 2008; Wagner, 2009).

Several theories have revealed that competitive advantage is an indispensable factor in achieving high performance. Competitive advantage has an important impact on the level of high performance and is related to knowledge management. The nature of firm competition and the sources of competitive advantage in many organisations have shifted towards knowledge based resources (Watson and Hewett, 2006). KM can be viewed under the resource based perspective; Kearns and Lederer (2003) consider knowledge as a resource contributing to high performance. The dynamic capabilities theory suggests that knowledge can be interpreted as a capability to achieve business goals (Alavi and Leidner, 2001). The dynamic capabilities view reflects unstable environments and deals with the capacity to sense and to seize opportunities and to reconfigure resources (Teece, 2007). Therefore, the resource-based view serves as the theoretical basis because it provides an appropriate basis for analysing how internal factors of a firm can contribute to high performance (Lockett et al, 2009). More purposely, we concentrate on the knowledge-based theory posited by (Grant, 1996) which builds on the resource-based view (Alavi and Leidner, 2001; Pitelis 2007).

The knowledge-based view of the firm is a recent approach to understanding the relationship between firm capabilities and firm performance (Chaminda et al, 2007; Marie and David 1999; Wagner, 2009). Specifically, this approach suggests that knowledge generation, accumulation and application may be the source of superior performance. Other researchers have conceptualised organisational knowledge in terms of stocks of accumulated knowledge in the firm and flows of knowledge into the firm. The knowledge-based theory further proposes that the ability to successfully deploy resources
Knowledge Management for Industrial Innovation and Development

relies on the knowledge residing in the human capital of a firm and the development of interrelated knowledge across organisational units, with organisational routines as mechanisms of knowledge integration (Grant, 1996). This theory states that knowledge is the most strategically significant resource of the firm. Its proponents argue that because knowledge-based resources are usually difficult to imitate and socially complex, heterogeneous knowledge bases and capabilities among firms are the major determinants of sustained competitive advantage and superior organisational performance (Grant, 1996; Alavi and Leidner, 2001). This study therefore concentrated on KM processes that have human activity; acquisition, dissemination and responsiveness processes of organisational knowledge and firm performance in the financial institutions. We suggest that the theoretical insights of the knowledge-based theory provide a strong basis to explore the nature and importance of the relationship between KM, competitive advantage and high performance.

Thus the theoretical literature clearly suggests that good KM practices by employees has important implications for achieving competitive advantage, and that competitive advantage moderates the relationship between these KM practices and high performance. Therefore, the following hypotheses have been formulated:

\( H_2 \): Knowledge management positively impacts on the organisations competitive advantage.

\( H_3 \): Competitive advantage moderates the relationship between KM and high performance.

4 Research Methods

The hypotheses were tested using a combination of both quantitative and qualitative research approaches. The combination of various research approaches and paradigms provides an opportunity for triangulation of information (Ghauri and Grohaug, 2002). The study employed a cross-sectional survey design. Survey methodology gives more control over the research process as it makes use of a questionnaire in which the data can be standardised allowing for easy comparison (Saunders et al, 2003).

Sample

Financial institutions were defined as institutions which collect funds from the public and invest these in financial assets such as deposits, loans and bonds, rather than tangible property. The participating financial institutions were identified through the Bank of Uganda’s supervision department list. Ten financial institutions were purposively selected from the districts of Kampala, and Wakiso based in central Uganda, these are the districts which have the highest concentration on financial institutions. The respondents were employees and managers holding numerous responsibilities at middle and higher occupational levels within the financial institutions in Uganda and they formed the unit of inquiry.

Data was gathered using a survey questionnaire containing items measuring the three subdomains of KM (knowledge acquisition, knowledge dissemination and responsiveness to knowledge) attributes, HPO factors, competitive advantage and high performance was distributed to 50 employees. A total of 33 employees (64%) returned usable questionnaires, 17 incomplete questionnaires were excluded from this final sample. The final sample consisted of 7.9 percent females and 92.1 percent males. All respondents had attained a first university degree and above.

To prevent a common method bias, the study obtained data on the independent and dependent variables from different sets of respondents (Podsakoff et al, 2003). The data on KM and its variables (independent) was obtained from employees. The data on the competitive advantage (moderator) was also obtained from employees were obtained from both employees and managers, and data on organisational high performance (dependent) were obtained from supervisors and senior managers.
Operationalisation of Variables

The variable knowledge management was measured using the thoroughly validated five dimensions scale of KM developed by Darroch (2005), which has 16 items with 6 referring to knowledge acquisition, 5 to knowledge dissemination and 5 to responsiveness to knowledge. Competitive advantage was measured using the Porter (2001) measurement scale. Organisational high performance was measured using work of Huselid (1995). Perceived high organisational performance was measured using Delanay and Huselid’s (1995) two scales on perceptions of organisational performance. The first scale consists of eight items assessing respondents’ perceptions of their firm’s performance over the past five years relative to that of similar organisations (perceived organisational performance). The second scale consists of two items concerning respondents’ perceptions of their firm’s performance over the past five years relative to product, market competitors (perceived market share). The items were scored on a ten-point Likert scale, ranging from 1 (strongly disagree) to 10 (strongly agree).

The appropriateness of the instrument was measured by carrying out content validity and construct validity (Lewis et al, 1999; Saunders et al, 2007). On the basis of the guidance of scholars (Churchill, 1979; Ehlert, 2004) adequacy and correctness of the instrument was assessed with the help of experts from different disciplines mainly human resource, strategic management, and psychology.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Descriptive Statistics</th>
<th>Variance</th>
<th>Cronbach</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>5.8917</td>
<td>1.48547</td>
<td>425.695</td>
<td>.953</td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>6.8389</td>
<td>1.65801</td>
<td>54.792</td>
<td>.840</td>
</tr>
<tr>
<td>Responsiveness to Knowledge</td>
<td>6.7048</td>
<td>1.66649</td>
<td>94.725</td>
<td>.901</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>7.2852</td>
<td>1.78542</td>
<td>204.015</td>
<td>.915</td>
</tr>
<tr>
<td>High Performance</td>
<td>6.8964</td>
<td>1.58406</td>
<td>250.925</td>
<td>.894</td>
</tr>
</tbody>
</table>

In order to summarise and understand the observed data, means and standard deviations were generated. The main purpose was to establish whether the statistics were a good fit of the observed data (Field, 2006; Saunders et al, 2007).

A critical analysis of Table 1 revealed that all mean scores of the constructs in question ranged from 5.8 to 7.2, with standard deviations between 1.485 and 1.785. Because of the small standard deviations, it was clear that the data points were close to the mean, hence the model (mean) was a good replica of reality (Garson, 2000; Field, 2006; Saunders et al, 2007). Means, standard deviations, and reliability estimates of the study variables are presented in Table 1 which reveals that the measures exhibited appropriate internal consistency reliability. With all alpha (α’s) almost at 0.9, the researchers concluded that the reliability was quite high.

In order to identify patterns in data, and expressing the data in such a way as to highlight their similarities and differences, we conducted a principle components analysis. The extracted factors have been used by the researchers in subsequent tests in the validation of the instruments and testing of the model. KM sub-domain items (knowledge acquisition, knowledge dissemination and responsiveness to knowledge) were subjected to the principle component analysis and the extracted factors and items were; knowledge acquisition, responsiveness to knowledge, and knowledge dissemination, respectively. The results also indicate that among the three variables, knowledge
Knowledge Management for Industrial Innovation and Development

knowledge acquisition accounted for the most variance in the KM components. The extracted factors for competitive advantage were capabilities and resources; the results also indicate that capabilities account for more variance in competitive advantage. Finally, the high performance components or items for different variables were extracted as follows profitability and market share. The results indicate that among the two variables, profitability accounts for more variance in the high performance construct.

To estimate the degree to which any two measures are related to each other the researchers used the correlation coefficient. Items that correlated highly with global variable confirmation that they are related. To establish the convergent validity of the constructs correlations were run and they were all significant at 0.01 level (2- tailed) with their global variables a true test that their items measure, knowledge acquisition, dissemination, responsiveness to knowledge, competitive advantage and high performance.

Table 2: Correlation for the Global variables

<table>
<thead>
<tr>
<th>Knowledge Acquisition</th>
<th>Knowledge Dissemination</th>
<th>Responsiveness to Knowledge</th>
<th>Competitive advantage</th>
<th>High Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.751**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.629**</td>
<td>.639**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.766**</td>
<td>.625**</td>
<td>.828**</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.547**</td>
<td>.477**</td>
<td>.792**</td>
<td>.798**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.004</td>
<td>.014</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results in Table 2 indicate that global variables namely: knowledge management components; knowledge acquisition, dissemination, and responsiveness to knowledge, competitive advantage, are related to high performance and are all significant at P < 0.01. The findings also indicate that competitive advantage (.828, Sig.000) accounts for the highest variance in high performance, followed by the responsiveness to knowledge in that order. The results indicate that there is a high correlation among the global variables.

Model Fit

The researchers also tested whether what was predicted or hypothesised and what the literature said were in line with the results. The researchers formulated the models and tested the hypotheses and also assessed the level of multi-collinearity in the model by carrying out regression tests. The first model tested the direct relationship between knowledge management sub-domains and high performance as hypothesised by the researchers. The formulated models and results are shown in Tables 3 and 4. They were all significant.
Knowledge management is positively associated with high performance. The relationship between knowledge management and organisational high performance) are as follows:

\[ HP = a + b_1A + b_2D + b_3R + b_4C + b_5e \ldots \ldots \ldots \] (i)

Where HP – High performance

Is a constant

\[ b_1, b_2 \text{ and } b_3 \] are coefficient values

A, D & R, represent knowledge acquisition, dissemination, and responsiveness.

C represents competitive advantage. The results for this model are given in the Table 3.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.756 .975</td>
<td>1.801 .086</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>-.079 .202</td>
<td>-.071 -.389</td>
<td>.702 .472</td>
<td>2.121</td>
<td></td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>.013 .187</td>
<td>.014 .071</td>
<td>.944 .423</td>
<td>2.364</td>
<td></td>
</tr>
<tr>
<td>Responsiveness to Knowledge</td>
<td>.822 .173</td>
<td>.851 4.751</td>
<td>.000 .492</td>
<td>2.034</td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 3 indicate that knowledge management is not directly related to high performance, with the responsiveness to knowledge sub domain explaining the highest variance at \( \beta \) . 851, Sig,000 and \( R^2 \) . 668. Therefore the \( H_1 \) is partially supported.

The model that explained hypotheses, 2.

\( H_2 \) Knowledge management is positively related to competitive advantage.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.270 .885</td>
<td>.1434 .165</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>.331 .192</td>
<td>.279 1.722</td>
<td>.098 .446</td>
<td>2.241</td>
<td></td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>-.101 .177</td>
<td>-.096 -.571</td>
<td>.573 .416</td>
<td>2.405</td>
<td></td>
</tr>
<tr>
<td>Responsiveness to Knowledge</td>
<td>.723 .160</td>
<td>.716 4.518</td>
<td>.000 .468</td>
<td>2.138</td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 4 indicate that knowledge management is positively related to competitive advantage with the knowledge acquisition sub domain explaining the highest variance at \( \beta \) . 771, Sig.000 and \( R^2 \) . 553. Therefore the \( H_2 \) is partially supported.
**Competitive Advantage and High performance Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.519</td>
<td>.980</td>
<td>.530</td>
<td>.601</td>
<td></td>
</tr>
<tr>
<td>Competit</td>
<td>.847</td>
<td>.128</td>
<td>.793</td>
<td>6.628</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: High Performance

The results presented in Table 4 indicates that knowledge management is positively related to competitive advantage with the responsiveness to knowledge sub domain explaining the highest variance; β=716, Sig. 000 and the R²= 730. KM is positively related to competitive advantage, and H2 is accepted.

The model that explained hypotheses, 3. The hierarchical regression models to explain the moderating effect of competitive advantage on knowledge management and high performance.

H₃: Competitive advantage moderates the relationship between KM and HPO) is as follows:

\[ HP = a + b₁A + b₂D + b₃R + e \cdots \cdots \cdots \cdots \cdots \cdots \cdots \cdots \ (ii) \]

The results for this model are given in the Table 5.

Table 5: The Regression Analysis for KM, Competitive Advantage and High Performance

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.461</td>
<td>.988</td>
<td>.466</td>
<td>.646</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>-.263</td>
<td>.191</td>
<td>-.238</td>
<td>-1.372</td>
<td>.185</td>
<td>.409</td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>.043</td>
<td>.165</td>
<td>.045</td>
<td>.261</td>
<td>.797</td>
<td>.421</td>
</tr>
<tr>
<td>Responsiveness to Knowledge</td>
<td>.429</td>
<td>.213</td>
<td>.444</td>
<td>2.016</td>
<td>.057</td>
<td>.253</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>.649</td>
<td>.245</td>
<td>.585</td>
<td>2.651</td>
<td>.015</td>
<td>.252</td>
</tr>
</tbody>
</table>

a. Dependent Variable: High Performance

It can be seen from Table 5 that the only variable that has a significant contribution to high performance is competitive advantage (Sig.0.000). It explains the high performance variance by 63 percent (R²= 0.628). The results in Table 5 indicate that after entering all the variables (that is, both criterion and moderating variables) in the model, competitive advantage came out as strong variable and significant levels at 0.000. These results fairly match the researchers’ predictions in the hypotheses. The collinearity diagnostics (for instance, VIF and Tolerance) indicate that the multicollinearity problem among the predictor variables does not exist because all the values are below the cut-off value according to the rule of 10; which advocates for a threshold VIF of 10 (Chong Ho Yu, 2008; Kutner, 2004; O’Brien, 2005; Scott, 2003). This is an indication that predictor variables are not highly related and therefore each can account for the variance in high performance (Kutner, 2004; Bowerman and O’Connel, 1990; Field, 2006; Chong Ho Yu, 2008).
5 Research Findings

Our statistical analysis yielded the following findings; Knowledge management has no direct influence on high performance, therefore our H1 was partially accepted. Knowledge management was positively related to competitive advantage, and hence, H2 is supported. It was further established that among the three dimensions of KM; knowledge responsiveness has the greatest positive influence in the model. Thus, competitive advantage moderates the relationship between KM, and high performance. H3 was supported. Competitive advantage was established a moderator for KM and high performance and has a positive impact on (objective and perceived) organisational high performance. Finally, competitive advantage moderates the relationship between and (objective and perceived) organisational high performance. The H3 was supported, the implication is that KM is not directly related to high performance, but it could have an influence if moderated by competitive advantage. We found that knowledge management has a relationship with high performance when enhance by competitive advantage.

6 Discussion

The findings indicate that KM could affect high performance indirectly. This does not mean that knowledge is not important, but the relationship of KM, CA and high performance is more critical for managers. In other words, with a good, KM could successfully increase high performance beyond that of its competitors (Liao, et al, 2007). Because the knowledge of an organisation is developed progressively, from acquisition, dissemination and response to knowledge, competitive advantage must be related to existing knowledge, including the experience and the structure of knowledge. Nieto and Quevedo (2005), found that different outside environments or industry sectors have different impacts on high performance. The same backgrounds of knowledge increase the flows of knowledge and the difference of knowledge help identify individuals. Based on the existing knowledge in the organisations, performance can be sustained (Darroch, 2005).

This is more comprehensive than the findings of Wagner, (2009), that KM leads to competitive advantage. Though, Pillania, (2008) found KM to be positively related with high performance, higher education did not test for the mediating influence of competitive advantage.

Practical Implications

High performance not only focuses on financial or market share, but also on process and management. For sustainability of high performance, organisations should adapt. If we consider an institution as a system, knowledge as it’s input, as it’s processing and high performance as its output. By managing the knowledge organisations acquire, disseminate and respond to they can translate into sustained competitive advantage and high performance. The concepts of KM, competitive advantage and high organisational performance appear to be an important and promising set of variables.

7 Conclusion

This study investigates the role of knowledge management, competitive advantage and high performance in financial institutions. In this research, we put into operation three constructs that are used to determine high performance; KM and competitive advantage. It was established that the high performance is not only related to competitive advantage and knowledge management but also to the overall organisational high performance.

Limitations

The researcher is aware of the limits of perceived taken for granted assumption of HPO in developed countries. This is perhaps too broad a point as institutions in different countries had different exposures to financial turmoil over the last few years but a pause here is that some of
the so called HPO ended up being bailed out by tax payers and others disappearing like Lehman Brothers among others.

There was a methodological limitation of using a small sample which limits the generalisability of the results into developing countries. In this study we consider competitive advantage as a moderator but we do not know whether or not organisational culture also influences high performance. This could be another mediator which would be a topic for further research. Organisational learning could promote KM, which means that we can acquire, disseminate and respond to knowledge through organisational learning in order to attain high performance. Given contextual issues and the fact that some results were not anticipated, there is a need to widen the study scope.

8 References


Nochols, F. (2000) “Knowledge Management (KM) and Process Performance Implications for Action”


1 Abstract

An organisation’s performance is determined, at least in part by how effectively and efficiently its business strategy is implemented. The process of implementing business strategies addresses how various activities are accomplished. How well these activities are accomplished is influenced by how they are organised and the specific behaviours the organisation undertakes regarding customer orientation, competitor analysis, innovation, and cost management. Corporate governance as a system by which organisations are controlled is increasingly acknowledged as important in determining the performance of organisations. This paper examined the various literatures on the role of corporate governance in strategy implementation in higher education institutions in Kenya. While it is acknowledged that good corporate governance contributes to organisations performance, it is also argued that strategy implementation is a complex and dynamic process. Many organisations thus fail to achieve their strategic objectives. Higher education institutions in Kenya are no exception. This is revealed by the recent studies that reveal that higher education is still faced with various challenges. In view of the importance of the role of the top leadership (Boards, CEOs, Deans, Academic Boards and top managers) in strategy implementation and decision making, it is recommended that more research is carried out to establish the factors that influence top leadership in strategy implementation in higher education institutions in Kenya.

2 Introduction

The Role of Higher Education in Economic Development

Economic development requires that productivity of workers improve over time. This is as a result of changes in production technologies and the organisation of the economies, particularly the world trading system, that present challenges and opportunities that require consistent improvements in skills. Higher education plays a crucial role in this process and especially in the generation of new knowledge and techniques that increase productivity. In essence, it is not only the quantity of labour that matters in the production processes but also the human capital embodied in labour. The broad recognition of the pivotal role that education plays in development of nations is evidenced by the substantial amount of expenditures that governments commit to the sector (Kimenyi, 2010).

Higher education is commonly defined as post-secondary education or more generally, tertiary education. Tertiary education includes formal education such as university education, training schools such as those specialising in teaching and medical training and a variety of other post-secondary institutions such as technical and vocational schools (Kimenyi, 2010). Kimenyi, (2010) further suggest that higher education is a relative and dynamic concept that changes over time and makes it possible to shift the production possibilities frontier as a result of increased productivity.
Higher education, also called tertiary, third stage, or post secondary education, is the non-compulsory educational level that follows the completion of a school providing a secondary education, such as a high school, secondary school. Tertiary education is normally taken to include undergraduate and postgraduate education, as well as vocational education and training. Colleges and universities are the main institutions that provide tertiary education. Collectively, these are sometimes known as tertiary institutions. Tertiary education generally results in the receipt of certificates, diplomas, or academic degrees. As well, higher education includes teaching, research and social services activities of universities, and within the realm of teaching, it includes both the undergraduate level (sometimes referred to as tertiary education) and the graduate (or postgraduate) level (sometimes referred to as graduate school). Higher education generally involves work towards a degree-level or foundation degree qualification. In most developed countries a high proportion of the population (up to 50%) now enters higher education at some time in their lives. Higher education is therefore, very important to national economies, both as a significant industry in its own right, and as a source of trained and educated personnel for the rest of the economy (http://www.Wikipedia).

Several authors have linked the role of higher education to economic growth (Bloom et al, 2006; Gyimah-Brempong et al 2006; Lin 2004). In his study (Bloom et al, 2006) found that a one year increase in the tertiary education stock for example, would increase growth in the first year by 0.63 percentage points, and 0.39 points each year thereafter until the frontier is reached. One specific channel through which higher education can spur development is research and development. Gains in knowledge and technological adaption boost productivity and create spillovers (Lederman and Maloney 2003).

The Role of Strategy implementation

Tertiary institutions, like any other enterprise are challenged by a world of transforming economies, rapid technological advancement, innovative competitor movement and demanding customer needs (Koh, Hubard, Hombuer and Seet 2002). Institutions of higher education have been forced to re-examine their operation and position themselves by matching organisational strengths and resources with changes in the environment so as to take advantage of opportunities and overcome or circumvent threats. In positioning themselves these organisations must make appropriate strategic choices that are consistent both at the corporate and business unit level. It is no wonder then that in recent times the operations of institutions of higher education are guided by strategic plans that articulate strategies to achieve its vision and mission.

Strategy consists of the competitive moves and business approaches that managers are employing to grow the business, attract and please customers, compete successfully, conduct operations and achieve the target levels or organisational performance (Thomson, Strickland and Gamble 2010). Due to the dynamism and uncertainty of the business environment, a company's strategy is a blend of proactive decisions and partly reactive decisions to unanticipated developments and fresh market conditions. While it is acknowledged that formulating a consistent strategy is a difficult task for any management team, making that strategy work or implementing it throughout the organisation is even more difficult (Hrebiniak, 2006). Jackson (2011) argues that, “Good strategies don't create value; it's implementing good strategies which create value.” This is supported by Oslon, Slater and Hult (2005) in noting that an organisation's performance is determined, at least in part, by how effectively and efficiently its business strategy is implemented. Similarly, Homburg et al (2004) argue that strategy formulation does not guarantee successful strategy implementation.

Strategy implementation is that process through which a chosen strategy is put into action through development of programmes, budgets and procedures. It entails securing resources, Organising and directing these resources within and outside the organisation to achieve a targeted outcome (http://www.scribd.com/doc, 20/4/2011). Yabs (2010) defines strategy implementation as, “that phase in the strategic management process when actions are taken to actualise approved plans beginning with the analysis of long term plans and breaking them down to workable annual or
short term plans. Mankins and Steele, (2005), Koh, Hubbard and Seet (2002) note that organisations typically fall short by 40 percent from fully realising their strategies full potential as a result of lack of emphasis and efforts by the organisation in implementing strategies and those that are able to capture more than 60 percent of their strategies potential value are likely to achieve above-average performance.

In the competitive higher education environment it is important that all institutions have a strategic plan which outlines their objectives, mission and vision and the relevant strategic objectives. Many institutions have aspirations which may never be achieved. Ideally, aspirations need to be evaluated and tempered with realism, possibly by considering both long-term and short-term goals. The continuous monitoring and implementation of strategy is thus important in developing realistic planning horizons. The institution’s strategic plan is approved by the board of directors whose goal of achieving strategic priorities is supported by resource allocation and guided by risk management. An institution’s strategic plan is a living corporate document which is regularly monitored and updated according to the achievements and aspirations.

**The Role of Governance in Facilitating Strategy Implementation**

Good corporate governance is the glue that holds together responsible business practices, which ensures positive workplace management, marketplace responsibility, environmental stewardship, community engagement, and sustained financial performance. This is even more true now that efforts are being made worldwide to restore confidence and promote economic growth following the financial crisis in 2008 (Buchs, 2009). Core to the role of any board is guiding corporate strategy and creating wealth for shareholders. The most effective corporate citizenship and sustainability strategies are led from the top, incorporate wide range of stakeholder views and are aligned with company’s business strategies (OECD, 2009). Today’s corporate citizenship is defined by a clear call to environmental, social and governance responsibility and this is links directly to three functions of boards and their directors duties to the companies and shareholders they serve that include; protecting stakeholders rights and interests; managing risks and creating long-term business value.

Governance in general is the overall framework of structures and processes, and the overall environment within which all decisions are made in an organisation. There is however, an important distinction between corporate governance and academic governance. Corporate governance is primarily concerned with an institution’s legal and financial standing, planning, compliance and reporting, which are the core responsibilities of the governing council or board of directors (a more common term) while Academic governance is concerned with the integrity of the core higher education activities of teaching and scholarship and in particular the structures and policies and processes which ensure quality outcomes. In general, these academic functions are delegated to academic board by board of directors.

Recognising the important role of corporate governance in an organisation, this paper aims to study the role of corporate governance in strategy implementation in institutions of higher learning in Kenya.

**3 Literature Review**

**Importance of Higher Education**

Globalisation has challenged and changed roles for governments, non-profits, and nongovernmental institutions (herein, NGOs) and likewise institutions of higher education especially in countries in Sub-Saharan Africa (SSA). In higher education, this has spawned the births of numerous entrepreneurial private universities and colleges that are. Many of the SSA countries have only recently secured political independence from their former colonisers. Moreover, many SSA countries have also only been navigating their development efforts for a few decades, following the
wake of the World Bank’s (herein, WB) and International Monetary Fund’s (herein, IMF) Structural Adjustment Programmes (herein, SAPs) of the 1980s.

Though research into higher educated in SSA is lacking, the few published scholars that exist seem to agree that higher education plays some role(s) in a country and in its development process. For example, Ogom (2007) notes that higher education has a key role in guaranteeing that a state can maintain a competitive edge. Birdsall adds that higher education incorporates four distinct areas: training students to function in professional, entrepreneurial, managerial, and technical positions; conducting research; executing public and private sector services; and encouraging and fostering indigenous self-expression” to help “conserve and adapt local traditions and values, and constitute important symbols of national prestige and attainment” (1996, 411-412). Higher education also serves as the bastion of scientific research, with the Government bearing responsibility for its financial support (Ogom 2007, 110). Increasing a state’s scientific knowledge often results in positive spillover for the rest of society, resulting in modernization and social transformation (Ogom 2007, 110). Altbach (1970) also notes that universities play critical roles in nations’ development processes, since they are sources of both social mobility and political forces (1970, 1). Additionally, though universities are important for their educational perspectives as well as their political ideologies and connections — or resistance — to the Government, this paradoxical situation sometimes renders them unable to protect their interests and autonomy from state intervention (Altbach, 1970, 2).

Ogom explains that “many SSA countries had looked to higher education as a fundamental vehicle of economic and political development. In Recognising the potential of its higher education institutions as indigenous incubators of national progress and revitalisation, these countries devoted substantial economic and human resources to projects that demonstrated the priority of higher education” (2007, 108). In this regard, scholars have written that some SSA countries espoused higher education as a type of panacea to their development woes, since governments originally “looked to the universities for implementation of development plans. It soon became clear, however, that higher education could not automatically solve the problems of modernization” (Altbach 1970, 7).

Guedeghe notes that the United Nations Educational, Scientific, and Cultural Organisation, UNESCO, has made higher education a priority, once it recognised the connection between higher education and science, technology, and sustainable human development (1997, 44). The author writes that UNESCO affirms that “higher education plays an important role because it is the enhancement of its relevance and quality that creates the conditions for progress in education at all other levels [primary, secondary]. Van den Bor also notes the troubles in assuming that higher education, and education in general, is the “magic bullet” to achieve development goals. Like Guedeghe and UNESCO, Van den Bor explains that:

> The impact of education will lead to individual and social change only if combined with relevant non-educational inputs … Socio-economic development absolutely requires education, including higher education. Thus, the contribution of higher education to development is relative, conditional and inevitable (1991, 11).

**A Case Study**

As part of the agenda of achieving the status as one of the 50 most competitive economies by 2015, the Republic of Kazakhstan is developing a new scientific and education complex entitled the New University in Astana. The goal behind the development of this new institution is to establish a university which will be part of elite universities worldwide that lead the way in excellence in education and research that are critical in incubating knowledge economies. Kazakhstan is ranked 56 on the World Economic Forum (WEF) Global Competitiveness Index (GCI) - not far from the top 50. Nevertheless, higher education Kazakhstan currently ranks at number 51 whereas on innovation, another pillar, its ranking is 70th. In the last decade Kazakhstan has seen the growth of its higher education sector with an expansion of existing institutions and increased number of
newly established private universities. Currently there are 177 universities in Kazakhstan, 68 public and 109 private with 5 branches of Russian universities. In 2004/2005 there were approximately 750,000 students enrolled in higher education out of a population of over 15 million. Kazakhstan has entered the Bologna process and the Government has prioritised international accreditation of universities, institutional capacity building, and greater access of tertiary education to overcome regional inequalities. Kazakhstan's legacy from the former USSR is a strong one. In 1990, Kazakhstan was an important part of the Soviet scientific research community and is the most industrialised of the former Soviet republics in Central Asia. The country has high levels of literacy (97%) and has achieved near universal primary education. Eleven years of schooling are mandatory for children between the ages of 6 and 17. In 2005 participation rates stood at 99.3 percent for 7 to 10 years old, 99.8 percent for 11 to 15 years old, and 86.7 percent for 16 to 17 years old. All education from primary to tertiary is free or financed by grants provided by the Government.

The challenge for Kazakhstan is to modernise its higher education sector particularly if the New University is to deliver on its ambitious objectives. The challenge is to ensure that the New University is launched and administered under an institutional structure which offers the dividends from a knowledge economy. This requires developing a modern administrative structure, innovative curricula, quality assurance practices, rules of engagement for universities and industry, as well as twinning arrangements with top-rate universities around the world. The challenge is particularly imminent as the first students admissions to the New University are expected in 2009.

In the context of demands of global economic competitiveness, sustainable development and equity concerns, the development of higher education, scientific and technological infrastructure as well as the technical and entrepreneurial skills is an essential prerequisite to the transformation of Kenya into acknowledge-based society. (Mwangi, 2008). In its long term development strategy, outlined in Vision 2030, the Government of Kenya envisages a nation that is globally competitive and prosperous with a high quality of life by the year 2030. In pursuit of the vision, Higher Education, Science, Technology and Innovation will be harnessed to stimulate technological and industrial transformation that will lead to sustained economic growth of 10 percent per annum, and social well-being in the next five years. This achievement is highly dependent on a well defined and supportive policy, institutional and legal framework that effectively addresses citizen needs and aspirations. The Ministry of Higher Education Science and Technology therefore, formulated this strategic plan to guide and promote focused integration of ST&I, Higher and Technical Education in all sectors of the economy. Specific emphasis will be placed on identified National Priority Growth and Social Sectors that have high potential to harness ST&I, Higher and Technical Education in attaining the targeted 10 percent annual economic growth and social development for the Kenyan people. In order to realise the above, the Ministry commits itself to facilitating the identification, acquisition, transfer, diffusion and application of relevant ST&I, higher and technical education in earmarked sectors of the economy. In this regard, this Ministry seeks the concerted and supportive efforts by all stakeholders to re-engineer structures, institutions and sectoral priorities for successful implementation of this strategic plan (Strategic plan, Ministry of Higher education, 2008).

As the Ministry of higher education and the institutions of higher education braise themselves to contribute to the achievement of Kenya’s Vision 2030, recent study by Kenya Institute of Public Policy Research (KIPPRA, 2008) it noted that there is a generational and leadership crisis in Kenya and a palpable mismatch between the peoples’ attitudes and those of their leaders towards well being. KIPPRA notes that Kenya is groaning under the weight of poverty, unemployment, corruption, and violence, among other development challenges. The Economic Recovery Strategy for Wealth and Employment Creation 2003-2007 (GoK, 2003) acknowledges most of these challenges; the education sector has not put forward responsive policies. Vision 2030, which aims to turn Kenya into a middle-class economy in 20 years, is a holistic attempt to deal with these challenges yet, for Kenya to successfully confront and tackle these problems; it requires a paradigm shift in its leadership. The creation of that shift in leadership is a role that is well suited to the education sector, and it must
champion it. Vision 2030 needs to be simplified and awareness on its aims and programmes spread to the lowest level of society in order to win buy-in and encourage participation.

Problems in Higher Education in Kenya

It is widely acknowledged that at a time when the rest of the world is heralding the emergence of a global knowledge-based society Africa as a continent now has the weakest higher education system in the world. For the last three decades or so African universities have undergone a crisis engendered by several reasons among them political interference and economic upheavals. The introduction of market driven policies by the World Bank and The IMF also saw the reduction of funding by governments while an increased enrolment by students was overlooked. The number of dons remained the same, accommodation and reading facilities were also not taken into consideration. Dons and students experiencing this crisis especially in the 1980s turned into demonstrations and strikes as both called for improved conditions in the universities. (Mwangi, 2008).

In Kenya, the role of higher education institutions is clear. First, they should provide education and training within a structure that combines research and teaching. Second, they should offer professional training in fields such as medicine, engineering, architecture, law and teaching. Third these institutions should operate as research centres, responsible for carrying out research in a broad range of disciplines. Fourth, they should play a part in regional development, as well as developing international contacts, and last but not least they should play a social function in fostering the intellectual and social development of the society.

Studies have confirmed that the nature of training provided by Kenyans public universities does not adequately prepare the higher cadre human resources that are required for development. In an editorial article in the Daily Nation (July 12 1997, p. 17), it was observed that “Education in Kenya has largely operated in isolation from the economic sector it is supposed to serve. The result has been that its products have at times been found wanting in vital skills that have hampered their absorption into the economic mainstream” (Mwangi, 2008).

The quality of the teaching staff is wanting. The poor state of the economy has affected the rewards of the lecturers and has caused the best of these brains to go searching for better terms abroad, while those left behind only dedicated minimal time to their responsibilities as teachers at the universities. In his study Revitalising Financing of Higher education in Kenya: Resource Utilisation in Public Universities, Abagi Okwach indicated that about 50 percent of the teaching staff at the two universities higher education studied, the University of Nairobi and Kenyatta University, were not working full time at the universities. Some of them were under employed (Mwangi, 2008).

The survey also indicated that about 40 percent of senior academic staff at public universities was performed part-time duties in other institutions, including private universities and NGOs. These staff members were engaged in various duties that included teaching, research, evaluation of programmes and running their own businesses without approval from the university administration, as is normally required. This has resulted in a situation where teaching staff devote little attention to research or improving their teaching, and play little or no role in the life of the institution employing them (Mwangi, 2008).

There has been rapid expansion in the higher education sector of Kenya. More people are seeking higher education from the few universities we have. This has over stretched the services of these institutions, compromising the quality of graduates in favour of quantity. It has also increased the cost of running these institutions. As a cost cutting measure university administration often employs outmoded teaching methods. Rote learning is common, with instructors doing no more than dictating their notes in overcrowded classes. These passive approaches to teaching have little value in a world where practicability, creativity, and flexibility are at a premium (Mwangi, 2008) guide the stakeholders. Strathmore University, one of the private university in Kenya has considered these concerns in its strategy and is embracing the nexus between teaching, research and service (Shabaya, 2009).
4 Strategy Implementation

Strategic Planning

Burgess states that:

Today’s organisations, including institutions of higher education, are being compelled to change from traditional ways of operating to new and innovative methods in order to survive in their respective markets” (quoted in Rowley, Lujan, and Dolence, 1998)

The idea of strategic planning was first conceived in the private sector but later introduced in higher education Institutions in about 1959 at Massachusetts Institute of Technology (Dooris, 2002). The aim of strategic planning was to foster accountability and encourage universities to set objectives that were measurable and would create organisational competitiveness. In recent times, emphasis has moved from just planning (thinking) to implementation (doing) thus leading to better management of these institutions. Groves (1997) has however, warned against universities from directly adapting strategy models from the private business sector without modification. This is because, unlike the business sector,

Higher education institutions are complex organisations whose purpose is not clear and often answer to multiple stakeholders (Baldrige, 1999). Groves proposed a modified version of the Porters value chain model for competitive advantage for universities which higher education says will adequately address the unique university organisational features – teaching, research and service. The opponents of strategy implementation argue that strategy is not the answer to the problems of the changing university since only 10 percent of the implementations succeed. In fact Dooris (2002) quotes an administrator who said that most universities: “Look at strategic planning as a path to pain, rather than a path to plenty” (2000.) We believe that when a proper process of planning and implementation is applied, strategic planning should positively contribute to a university’s competitiveness (Shabaya, 2009).

Groves agrees with this postulate when higher education says: “Strategic management techniques can make a substantial contribution to university management (1997, P.309)”.

Strathmore University, for example, recognises its position as a new entrepreneurial university with a current bias in teaching. However, for the university to remain relevant and competitive, this has to change to allow for a balance between research, service and teaching. The University strategy is designed to be the vehicle for this change where research will complement teaching with the aim of meeting the needs of the society (Shabaya, 2009).

Factors Hindering Strategy Implementation

Beer and Eisenstat (2000) outlined six killers of strategy implementation and learning and they argue that just as doctors call high cholesterol a “silent killer” because it blocks arteries with no outward symptoms, organisations too have silent killers working below the surface mutually reinforcing barriers that block strategy implementation and learning. The six silent killers include, top-down or laissez-faire senior management style, unclear strategy and conflicting priorities, an ineffective senior management team, poor vertical communication, poor coordination across functional business or borders, and inadequate down the line leadership skills and development. Based on literature review, some of the key factors that hinder strategy implementation in organisations are highlighted. The Institutions of higher education in Kenya or anywhere else are no exception.

Lack of linkages between strategy and operational plans and unclear measures for effectiveness

A visionary strategy that is not linked to excellent operational and governance processes cannot be implemented successfully and conversely operational excellence with tactical action steps may lower costs, improve quality and reduce process and lead times, but without a strategic vision and
guidance, an organisation is not likely to enjoy sustainable success from operational improvements (Kaplan and Norton, 2008). According to Kaplan and Norton, (2008), only 40 percent of organisations linked their budgets to their strategies, less than 10 percent of employees reported that they understood their organisation’s strategy and 85 percent of executives spend less than one hour per month discussing strategy while 50 percent reported spending no time on strategy. Most executives rely on local tactics such as budgets, Management by Objectives, MBO), marketing, sales plans among other variables.

**Lack of comprehensive and integrated management system**

Strategy development and links with operations remain ad hoc, varied, fragmented even with myriad strategy and operational management tools now available. These tools range from Michael Porter’s strategy formulation methodologies like five forces competitive frameworks, resource-based view strategy, core competencies and blue ocean strategy, tools used to test robustness of strategy like scenario planning, dynamic simulations, war –gaming to strategy maps and balanced score card that help translate, communicate, measure strategies and assessment tools like total quality management, six –sigma, kaizen and the like (Kaplan and Norton, 2008). Organisations still lack a theory or framework to guide the successful integration of the many tools.

**Strategy–structure relationship**

Factors relating to the organisational structure are one of the most important implementation barriers. According to Li, Guohoi and Eppler (2008), a proper strategy-structure alignment is a necessary precursor to the successful implementation of new business strategies. They point out that changes in the competitive environment require adjustments to the organisational structure. If a firm lags in making this realignment, it may exhibit poor performance and be at a serious competitive disadvantage.

**Relationships among different units/departments and different strategy levels**

Relationships among different units/departments and different strategy levels affects the outcome of strategy implementation (Li, Guohui and Eppler, 2008). Chimhanzi (2004) suggests that cross-unit working relationships have a key role to play in the successful implementation of marketing decisions and that implementation effectiveness can be affected negatively by conflict and positively by communication and specifically, interpersonal relationships. In turn, these interdepartmental dynamics are affected by senior management support, joint reward systems, and informal integration.

**Strategy–culture relationships**

Strategy-culture relationships–for success over long periods of time, Kotter and Heskett (1992) claimed that “adaptive culture” is needed to help organisations cope with changing environment. This is because adaptive culture embraces change and inspires commitment to work. According to Koh, Hubbard and Seet (2002) adaptive culture is one of the key dimensions in strategy implementation of high growth and high performing organisations. An organisation with strong culture have deeply rooted values and operating approaches that regulate conduct of organisation’s business and climate of its work place. These organisations embrace change, empower employees, reward good performance, have sound ethical principles, do not engage in negative politics, discrimination, favouritism or the like. Unhealthy culture do not aide strategy execution as such organisations which disregard ethical standard, are hostile to change and engage in negative politics that breed conflicts.

**Role of leadership**

Kaplan and Norton (2008), noted that successful strategy implementation in different regions and industries, including manufacturing, financial services, customer services, non-profit, educational, and public sector have one common element and that is exceptional and visionary leadership, leadership with focus and passion to succeed. Apart from leading the process of strategy formulation,
leadership must ensure successful strategy implementation by delegating and empowering talented managers at all levels and ensuring everyone is fully engaged and that the organisation possesses the capabilities and competencies necessary to adapt to changes in the environment.

Li, Guohui and Eppler (2008) identified nine factors that affect strategy implementation and these can be divided into soft, hard, and mixed factors. *Soft factors* (or people-oriented factors) include the people or executors of the strategy, the communication activities (including content and style issues) as well as the closely related implementation tactics, the consensus about and commitment to the strategy, while the *hard (or institutional) factors* include the organisational structure, the administrative systems. The way in which the strategy was developed and articulated (strategy formulation) contains hard and soft factors alike and is thus considered a mixed factor.

5 Concept of Corporate Governance

**Definitions**

Corporate governance refers to the way that boards oversee the running of a company by its managers, and how Board members are held accountable to shareholders and the company. This has implications for the company’s behaviour not only to shareholders but also to employees, customers, those financing the company and other stakeholders including the communities in which the business operates (OECD, 2009).

While authors identify ‘governance’ as important to achieving policy or organisational objectives, it may be unclear whether the reference is to organisational structures, administrative process, managerial judgment, systems of incentives and rules, administrative philosophies, or combinations of these elements (Lynn, Heinrich, and Hill, 2000: 1).

In order to prosper in today’s continuous changing landscape, organisations must develop a means to adapt and exploit changes in their environment (Helfat *et al*, 2007). This will in turn satisfy the expectations of the different stakeholders by creating value in the context of actual or potential competition and decisions about products and market scope (Thompson and Strickland, 2003).

Pierre and Peters (2000) say that governance has become a popular if not trendy concept in much of the contemporary political and academic debate. Many scholars define variously the concept of governance and suggest desirable models of governance. Corporate governance is concerned with the integrity of the core higher education activities of teaching and scholarship and in particular the structures and policies and processes which ensure quality outcomes. In general, these academic functions are delegated to an academic board by the board of directors.

Corporate governance generally focuses on the top-level structure that starts with the nature of the legal entity and with the governing body, which delegates authority to make decisions to managers and to academic governance bodies. This creates a network or matrix of relationships (and levels of authority) that originates from the governing body. All managers, boards and committees are ultimately accountable to the governing body. These different institutions provide services with poor structure of new governance or traditional bureaucratic governance structure depending on policy and service fields. This difference necessarily brings about performance variation. This paper tries to find the effect/role of governance on the strategy implementation of higher education in Kenya.

**Corporate Governance and Academic Governance**

Governance in general is the overall framework of structures and processes, and the overall environment within which all decisions are made in an organisation. There is an important distinction between corporate governance and academic governance. Corporate governance is primarily concerned with an institution’s legal and financial standing, planning, compliance and reporting, which are the core responsibilities of the governing council or board of directors (a more common term). Academic Governance and Quality Assurance: Good Practice for NSAI 2.
Governance is concerned with the integrity of the core higher education activities of teaching and scholarship and in particular the structures and policies and processes which ensure quality outcomes. In general, these academic functions are delegated to an academic board by the board of directors.

Academic governance is a subset of the overall governance of an education organisation, and deals with the framework that regulates academic decisions and academic quality assurance within the organisation. Academic governance is concerned with the integrity of the core higher education activities of teaching and scholarship. The academic board, therefore, may have delegated decision-making powers over academic matters which are reported to the board of directors.

The framework of corporate governance also depends on the legal and regulatory environment. In addition, the factors of corporate responsibility and ethics are significant aspects of the problem of corporate governance. Thus one must first recognise the complexity and interdisciplinary nature of corporate governance before attempting to research its problems in a transition economy.

**Corporate Governance in India**

Corporate Governance is concerned with the establishment of a system whereby the directors are entrusted with responsibilities and duties in relation to the direction of corporate affairs. It is concerned with accountability of concerned persons, who are managing it towards the stakeholders. It is concerned with the morals, ethics, values, conduct and behaviours of the company and its management. This paper deals with the governance of business organisation in the context of business corporate sector (Hothi, Gupta and Gupta, 2011).

**Corporate Governance and Development**

A healthy and competitive private sector is becoming increasingly important for developing nations. Two factors could explain why: First, within the context of globalisation and integration of national economies, corporate governance is considered as an important comparative advantage of companies and countries, because it increases foreign investors’ confidence in the private sector. Secondly, as a result of the downsizing of the public sector that occurred during the last two decades, the private sector has become an increasingly important provider of public goods, although not its trustee. Corporate governance is a tool of oversight that provides information about the functioning and performance of private firms. Effective corporate governance supports economic performance of nations. The nature of this relationship is described in this section.

**Corporate Governance as a Complement to Institutional and Legal Framework**

The relationship between countries’ development and the quality of their institutions is well established. The basic assumption is that a solid institutional framework promotes private sector development, reduces societal transaction costs, encourages an effective honest private sector, while at the same time, it increases the Government’s capabilities in overseeing the private sector within contexts where the legal framework, and, or the rule of law is insufficient or inappropriate. Coffee (1999) shows, that “in the absence of legal protections for the minority shareholders, investors depend on Black in an empirical study concludes that corporate governance practices affect the value of Russian firms. Higher education found strong evidence about the importance of such practices in the assessment of firms, especially when other constraints on corporate behaviour are weak. La Porta et al (1998) in a study that compares corporate governance practices around the world, conclude that the corporate agency conflict between the controlling and the minority shareholders can be solved by improving the legal environment, and also by implementing protections for minority shareholders rights (one of the corporate governance principles.) A final advantage of corporate governance in the context of weak legal frameworks is that it creates a set of private stakeholders who will call for governmental rule of law to protect the improvements to
which they are pursuant in their firms. In the last two decades, many developing countries embarked on ambitious reforms to strengthen the environment for private sector development, including liberalised trade and investment policies, measures to strengthen their financial sectors, and efforts to encourage the growth of exports, technological progress and foreign investments. The expected rewards were increased investment, productivity and exports, deeper financial markets, larger access to capital, and a vigorous rebound from crises. A downside of the integration processes is vulnerability.

Developing nations are more likely now than ten years ago to suffer the effects of a major economic crisis. Globalisation made developing countries more vulnerable to the impulses of international lenders and portfolio investors and the resulting market fluctuations (Stone et al, 1998). In addition, absences of worker's protection increase the potential or labour exploitation. Market failures such as the corporate agency problem clearly demand a further intervention. Corporate governance practices had proved to be efficient in ameliorating the consequences of an international crisis. Mitton, using firm level data for 399 firms of five East Asian nations, found that indicators of higher disclosure quality are related with significantly better stock prices during the crisis, and higher outside ownership concentration led to better performance during the crisis. Mitton's study concludes that corporate governance matters particularly on crisis regardless of countries’ legal context. In the same line, Johnson et al (1999) study the depreciation of currencies and the decline of stock markets in 25 countries during the 1997-1998 Asian Crisis. “They find that governance variables, such as investor protection indices and the objective of improving both of them. A research culture should encourage the creation of community of scholars that comprise individual faculty, researchers and research students. Hazelkorn asserts that to encourage research universities have to recognise the different types of research, that is, basic versus applied research; individual vs collaborative, department Vs institutional research priorities; post graduate vs staff research. The UK Reform Act of 1988 created independence for colleges and other Higher Education Institutions (HEIs) and allowed them to offer degrees in order to create more knowledge workers for the growing economy. The change created new universities that transformed higher education into mass higher education (massification). Students who enrolled for university programmes wanted to gain skills for the job market.

Models of Corporate Governance

There are many different models of corporate governance around the world. They differ according to the variety of capitalism in which they are embedded. The liberal model that is quite common is the Anglo-American model which tends to give priority to the interest of the shareholders. The liberal model of corporate governance encourages radical innovation and cost competition. The Anglo-American model provides that a corporation is governed by a board of directors, which has the power to choose a chief executive officer. The CEO is mandated with powers to manage the corporation on a daily basis, but needs to get board approval for certain major actions, such as hiring his/her subordinates, raising funds, acquisitions, major capital expansions, or other expensive projects. The board of directors is nominally selected by the shareholders, but the company laws of many countries and individual companies make it difficult for all but the largest shareholders to have any influence over the make-up of the board; normally, individual shareholders are not offered a choice of board nominees among which to choose, but are merely asked to rubber stamp the nominees of the sitting board.

The UK has pioneered a flexible model of regulation of corporate governance, known as ‘comply or explain’ code of governance. This flexible model is a principle based code that lists a dozen of recommended practices, such as separation of the CEO and chairman of the Board, the introduction of a time limit of CEO’s contracts, the introduction of a minimum number of non executive’s directors of independent directors, the formation and composition of remuneration, audit and nomination committees. Public companies in UK have either to comply with the principles, or if they choose not to, to explain in a designated part of their annual reports why they decided
not to do so. The coordinated model that one finds in continental Europe and Japan recognises the interests of shareholders just like the Anglo-American models, however, it also recognises the interests of workers, managers, suppliers, customers and the community.

**Good Codes of Corporate Governance**

Corporate governance principles and codes have been developed in different countries and issued from stock exchanges, corporations, institutional investors, or associations of directors and management with the support of government. According to Gordon and Roe (2004) the characteristics of governance practices within a governance practices within a given country are the result of both forces aimed at increasing their efficiency, and legitimisation effects of path independence. The integration of financial markets and the pressure form Anglo-Saxon institutional investors shape the corporate governance of large companies in any country. This, in turn, increases the protection of shareholders rights, encourages the creation of a more independent and active board of directors, and favours the development of more transparent and efficient financial markets (Van den Benghe, 2002; Monks and Minow, 2004).

According to Zattonin and Cuomo (2008) codes of good governance are the best practices recommendations regarding the characteristics of the board of directors and other governance mechanism. They provide a voluntary means and guidance for improved of governance practices. They are considering the board of directors and other governance mechanisms. Such codes have been designed to address deficiencies in the corporate governance system by recommending a set of norms aimed at improving transparency and accountability among top managers and directors (Fernandez-Rodiguez, *et al*, 2004). In most legal systems, codes of good governance have no specific legal basis, and are not legally binding (Wymer, 2006). Enforcement is generally left to the effectiveness of internal control bodies. Even if emphasis with code recommendations is, traditionally voluntary and based on 'comply or explain' rule empirical evidence shows that publicly traded companies tend to respond to main code recommendations (Conyon and Mallin, 1997; Gregory and Simmerlkjaer, 2002). Hence, codes of best practices exert major influence on the corporate governance of listed companies.

The content of codes has been strongly influenced by corporate governance practices. Codes touch fundamental governance issues such as fairness to all shareholders, clear accountability by directors and managers, transparency in financial and non-financial reporting, the composition and the structure of boards, the responsibility for stakeholder's interest, and for complying with the law (Gregory and Simmerlkjaer, 2002).

According to International Corporate Governance Network (ICGN) report (2005) the purpose of the corporate governance code is to provide practical guideline for boards to meet expectations so that they can operate efficiency and effectively. The ICGN provided that the structure of the board will largely depend on the board will large depend on the national model adopted, however, boards should be responsible for guiding corporate strategy, monitoring performance, aligning remuneration with company’s interest, and ensuring integrity of systems and overseeing disclosure. It provides that directors should have appropriate skills, knowledge and experience and have the capacity to fulfil their fiduciary duty. Directors should be re-elected at least once every three years. The report also emphasises that there should also established audit, compensation and nominative/governance committee. Similarly, companies should act to protect shareholders rights (Ondiek and Egess, 2011).

**Corporate Citizenship and Sustainable Businesses**

Corporate citizenship is a commitment to ethical behaviour in business strategy, operations and culture. It has been on the periphery of corporate governance and board leadership, linked mainly to corporate reputation. However, in today’s globalised and interconnected world, investors, creditors and other stakeholders have come to recognise that environmental, social and governance responsibilities of a company are integral to its performance and long-term sustainability.
Good corporate governance practices instil in companies the essential vision, processes and structures to make decisions that ensure longer-term sustainability. More than ever, we need companies that can be profitable as well as achieving environmental, social and economic value for society (Rachel Kyte, Vice President, Business Advisory Services, IFC).

Boards, collectively and directors individually, are central in accomplishing organisational objectives. Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals.

The benchmarks inform the work of the Global Corporate Governance forum in its efforts to promote good corporate governance practices in emerging markets and low income countries. A well governed company takes a longer-term view that integrates environmental and social responsibilities in analysing risks, discovering opportunities and allocating capital in the best interests of share owners. There can be no better way to restore public confidence in both businesses and markets and build a prosperous future (Georg Kell, Executive Director, UN Global; Compact). The figure below shows responsible business and sustainable profits are embedded into the function of the board.
Figure 1:

Adapted from Global Corporate Governance forum: The Foundations for Corporate Citizenship and Sustainable Businesses
**Board Responsibilities**

Today’s corporate citizenship; defined by a clear call to environmental, social and governance responsibility; links directly to three fundamental functions of boards and their directors’ duties to the companies and shareowners they serve:

1. Protecting stakeholder rights and interests
2. Managing risks
3. Creating long-term business value

Effective corporate governance requires due diligence in rallying the support and commitment of the broad network of business stakeholders, including share owners, employees, customers and communities. If stakeholders are adversely affected by a company’s actions, shareowner value will suffer. With the growth in pension and insurance funds and other institutional investors, share owners are increasingly also company stakeholders, such as employees or customers. Therefore, these groups’ needs are increasingly interconnected.

New understanding of managing risk shows that boards have a legal and fiduciary responsibility to manage environmental, social and governance risks. Directors need to be informed and prepared to manage these long-term concerns alongside typical corporate directives. By addressing and managing these risks effectively, boards can position their businesses to perform well financially and secure a long-term license to operate. By failing to do so, boards can undermine their company’s reputation.

**Corporate Governance and Strategy Implementation**

“How can strategic planning help new universities re-define the meaning of scholarship?” The old Traditional universities (older than 100 years) have perfected their existence as sources of knowledge through basic research and publications. However, most of the newer universities, so called “teaching universities”, have on the other hand concentrated on scholarly teaching rather than research. There has also been a growing demand for a third type of recognition; the recognition for service that will transfer knowledge from universities to the industry or society. (Shabaya, 2009).
6 Conclusion and Recommendations

Today, the world economies are linked together through the various dimensions of globalisation. What this means is that even poor economies must compete with advanced countries. The low-income countries must therefore, continually seek to catch up with the technologically advanced nations. The labour force in these countries must acquire the necessary human capital that provides them the capacity to adopt existing technology or innovate so as to be able to compete in global markets. Although lagging in technology, higher education can equip the poor countries such that they can leapfrog the development path (Shabaya, 2009).

Ogom (2007) maintains that African higher education institutions can potentially have a far-reaching role in their state’s development; so as long first, universities perform a curricular overhaul to better align the institution, its teachings, and its students’ learning with the countries reality, culture, and “genius, means, needs and collective ambition.”

Higher education, though wrought with challenges, can do a lot of good for Kenya’s development progress. These challenges can be viewed as opportunities. This calls for commitments, all inclusive strategy formulation and implementation process. As the environment is discontinuous, continuous monitoring and evaluation of strategy implementation became essential.

7 References


Daily Nation, (July 12, 1997), page 17


http://www.wikipedia.com retrieved on 30th July 2011

International Corporation Governance network 2005


Strategic Plan for Ministry for Higher Education 2008-2012


18

The Level of Professionalism and Effectiveness of the Teacher Counsellor in Student Guidance and Counselling in Secondary Schools in Nandi North District

Tanui, E. (PhD); Ndegwa, Lucy and Jepkemboi, R. – (School of Education, Arts and Social Sciences, Narok University College, Kenya)

1 Abstract

This study investigated the relationship between the level of professionalism and effectiveness of the teacher-counsellors in students’ guidance and counselling in secondary schools in Nandi North District. Research questions used helped discern the most important factors which operate in guidance and counselling activities so as to find out if the common assumptions that highly trained and professional teacher-counsellor is highly effective. The methodology employed in this research was ex-post facto technique. Stratified random sampling approach was used to identify schools and participants in the sampled schools. The research instruments used were interviews, questionnaires document and resources study. Data analysis revealed that there is a significant relationship between the level of professionalism and effectiveness of the teacher-counsellors in student guidance and counselling. A majority of the teacher-counsellors were not trained in guidance and counselling. Services offered by the teacher-counsellors in guidance and counselling include academic, vocational, health, spiritual and social spheres. Most of the teachers do not keep any records and the few who keep have students’ attendance files and personal/background information files only. The study also established that there are many factors that are responsible for effectiveness of the teacher-counsellors other than training. Recommendations were made to the Ministry of Higher Education, head teachers and other administrators and the teacher-counsellors on the need to put in place workable schedules based on the conceptual framework to improve the level of professionalism and consequently effectiveness. The study further recommended that well equipped guidance and counselling offices be provided by schools for easy co-ordination of guidance and counselling activities in secondary schools. Key words: Professionalism, Effectiveness, Teacher Counsellor, Student, guidance and counselling, Secondary schools.

2 Introduction

Through the legal notice 56/2001, teachers were required to face the challenges of caring and protecting children from corporal punishment in schools. It viewed corporal punishment as an example of acceptance and promotion of violence in society against children. (MOEST 2001). Recent trends in the world concerning human rights, paved way to human rights activists that brought into focus the issue of corporal punishment as a way of correcting errant students. It
was as a result of this move and the Government’s desire to adopt a more humane and effective approach that laid emphasis on guidance and counselling. However, there are still so many eruptions of indiscipline cases in secondary schools that have kept many people who are concerned with education wondering if real guidance and counselling takes place and in the right way in secondary schools.

**Statement of the Problem**

In September 2001, the Ministry of Education Science and Technology constituted a task force to gather views and information from all stakeholders in education, on causes of unrest and indiscipline in secondary schools, and make recommendations on actions to be taken to address the emerging issues. The task force carried out a country-wide research to establish causes of unrest, and some of the heinous acts committed by students where among others, the Kyanguli incident in Machakos where 68 students were burnt to death, St. Kizito in Embu where 19 girls died and Nyeri high school where 4 prefects were burnt to death, (Republic of Kenya 2001).

*Education Act (1980), Legal Notice number (40/1972), and the Head Teachers’ Manual (1975)*, clearly emphasise that students’ discipline and behaviour must conform to societal norms and expectations. Their conduct must be commensurate with their status as students. The teacher-counsellors have to deal with many people from very diverse backgrounds and in addition, accruing challenges in the modern society such as, HIV and Aids, drug abuse, career muddle and employment, heterosexuality and delinquency and information overload. This calls for serious guidance and counselling programmes in schools.

The main aim of the study was to discern the most important factors, which operate in guidance and counselling activities, so as to find out if the common assumption that a highly trained and professional teacher-counsellor is highly effective.

### 3 Conceptual Framework

This framework consists of the most essential requirements that can be attributed to the making of professional teacher counsellors in secondary schools. Though guidance and counselling dates back to the 1970s as a professional concept, it is a new phenomenon in Kenyan schools since teacher training emphasised on subject matter and teaching methods. At its initial stages of development, it is based on self- motivated teachers to run its programmes. A professional teacher-counsellor
needs to go through rigorous training over a period of time. The right personality is a very essential in guidance and counselling and so is motivation to do their jobs. The success of guidance and counselling programmes requires the collaborative participation of the parents, teachers, students, school administration and the professional community. Therefore, it is the role of the teacher counsellor to co-ordinate and harmonises the activities of the various groups.

4 Methodology

The study employed ex-post facto design. The respondents were purposively selected for the study. They included the head teachers, teacher counsellors, teachers and students. Questionnaires and interviews were used to collect data. Descriptive statistics were used to collect data.

Data Analysis and Findings

The data presentation is conducted under this section, namely: The level of professional training of the teacher-counsellor in guidance and counselling and effects on performance of guidance and counselling tasks.

The Level of Professional Training of the Teacher-Counsellor in Guidance and Counselling Affect Performance of Guidance and Counselling Tasks

Table 1: The Academic Qualifications of the Teacher-Counsellors

<table>
<thead>
<tr>
<th>Academic qualifications</th>
<th>F</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. ED</td>
<td>13</td>
<td>72.2</td>
</tr>
<tr>
<td>Dip.</td>
<td>5</td>
<td>27.8</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to responses on the academic qualifications of the teacher-counsellors as indicated in Table 1, majority 13 (72.2) of the Heads of Departments, guidance and counselling have Bachelor of Education qualification, 5 (27.8) are diploma holders. From this analysis, it can be concluded that majority (72.2) of teacher-counsellors in Nandi North are trained graduate teachers.

Table 2: Qualifications of the Teacher-Counsellors in Guidance and Counselling

<table>
<thead>
<tr>
<th>Qualifications / training in guidance and counselling</th>
<th>F</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diploma</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>KESI training (Induction courses)</td>
<td>3</td>
<td>16.7</td>
</tr>
<tr>
<td>1 – 5 day seminars</td>
<td>7</td>
<td>38.9</td>
</tr>
<tr>
<td>None</td>
<td>8</td>
<td>44.4</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>100.0</td>
</tr>
</tbody>
</table>
In Table 2 depicting qualifications of the teacher-counsellors in guidance and counselling above, revealed that 3 (16.7) teacher-counsellors have been trained by KESI through a two-week induction course in guidance and counselling. Seven (38.9) have attended 1 – 5 day seminar courses on issues pertaining to guidance and counselling and 8 (44.4) have never attended any course in guidance and counselling. It is evident that most 15 (83.3) of the teacher-counsellors are untrained in guidance and counselling. The reasons given by teachers for not having attended any training ranged from head teachers not getting information on time to lack of money to send the teacher-counsellors for seminars.

From the interview, the teachers also revealed that from the onset of free primary education, KESI which is charged with the responsibility of training teachers had concentrated on training head teachers on school management, especially in school finances, therefore, temporarily leaving out other areas which include guidance and counselling.

Table 3: Teacher-Counsellors Experience as Head of Department

<table>
<thead>
<tr>
<th>Length of service (years)</th>
<th>F</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 2</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>2 – 4</td>
<td>6</td>
<td>33.3</td>
</tr>
<tr>
<td>4 – 6</td>
<td>3</td>
<td>16.7</td>
</tr>
<tr>
<td>6 – 8</td>
<td>0</td>
<td>00</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>100</td>
</tr>
</tbody>
</table>

In response to the interview questions on the length of service of the teacher-counsellor as Head of Department, Table 3 shows that 3 (16.7) teachers-counsellors have been HODs, guidance and counselling for more than 4 years and 9 (50) have served for less than 2 years, indicating that the majority 15 (83.3) have worked for less than 4 years. This could be because the emphasis on guidance and counselling was put in place after the Government banned corporal punishment in Kenyan schools in 2001 through legal notice number 56/2001. This was also in line with the task force on student discipline and unrest in secondary schools’ (2001) recommendations that all secondary schools were expected to establish and sustain viable guidance and counselling programmes and a teacher appointed to coordinate the programmes in school. These teachers are designated as Heads of Departments and are appointed by the TSC, or internally by the BOG.

The types of guidance and counselling services are offered in secondary schools

Table 4: Student Responses on Guidance and Counselling Services Offered in Secondary Schools

<table>
<thead>
<tr>
<th>Guidance and counselling services offered</th>
<th>F</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice of subjects for future careers</td>
<td>649</td>
<td>22.6</td>
</tr>
<tr>
<td>Social problems</td>
<td>593</td>
<td>20.7</td>
</tr>
<tr>
<td>Academics</td>
<td>1356</td>
<td>47.3</td>
</tr>
<tr>
<td>None</td>
<td>257</td>
<td>9.0</td>
</tr>
<tr>
<td>Others: spiritual, health</td>
<td>318</td>
<td>11.1</td>
</tr>
</tbody>
</table>
Table 5: Teachers’ Responses on Guidance and Counselling Services Offered in Secondary Schools

<table>
<thead>
<tr>
<th>Guidance and counselling Services offered</th>
<th>f</th>
<th>Percentage</th>
<th>T. f</th>
<th>T. Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational</td>
<td>30</td>
<td>18.40</td>
<td>163</td>
<td>100</td>
</tr>
<tr>
<td>Academic</td>
<td>160</td>
<td>98.16</td>
<td>163</td>
<td>100</td>
</tr>
<tr>
<td>Social</td>
<td>104</td>
<td>63.80</td>
<td>163</td>
<td>100</td>
</tr>
<tr>
<td>Personal</td>
<td>99</td>
<td>62.74</td>
<td>163</td>
<td>100</td>
</tr>
<tr>
<td>Others: spiritual, health (medical)</td>
<td>60</td>
<td>36.81</td>
<td>163</td>
<td>100</td>
</tr>
</tbody>
</table>

Tables 4 and 5 above reveal that academic guidance takes the lead in the services offered to students by guidance and counselling teachers in secondary schools. 1356 (47.3) of the students and 160 (98.16) of the teachers ranked academic guidance and counselling as the highest service.

From the students’ responses in Table 5, choice of subjects for future careers came second 649 (22.6) followed by social problems 592 (20.7), spiritual and health 318 (11.1) respectively. While 257 (9.0) of the students indicated that they have never attended any type of Counselling.

According to the teachers’ response in Table 5, the reason why vocational counselling takes the least 30 (18.40) in relation to academic 160 (98.16) is because in most schools it was revealed that the teacher in charge of careers is also a member of Counselling committee hence can do both concurrently.

Reasons attributed to the high score in academic Counselling 160 (98.16) and 1356 (47.3) are that: Academic guidance and counselling is in line with the core function of the school being academic, the professional qualification of the teachers who are masters in their subject areas and the current emphasis placed on the performance which has made teachers take a keen interest in their subject areas. This is also reflected in the table where class teachers and other teachers play a great role in guidance and counselling.

Whereas academic Counselling takes the lead, medical (health) and spiritual Counselling as indicated by 318 (11.1) students and 60 (36.81) teachers respectively, ranks lower because the teacher-counsellors have no training in medical field, and therefore, limited in medical Counselling. Some schools have nurses and chaplains or priests to help in spiritual matters as shown in table, 4.5.10. Chaplains 624 (21.8) and others, nurses included 402 (14.0) respectively.

Confidentiality of the Teacher–Counsellor

<table>
<thead>
<tr>
<th>Response</th>
<th>F</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>22</td>
<td>13.50</td>
</tr>
<tr>
<td>Most times</td>
<td>26</td>
<td>16.00</td>
</tr>
<tr>
<td>Rarely</td>
<td>87</td>
<td>53.40</td>
</tr>
<tr>
<td>Not at all</td>
<td>28</td>
<td>17.18</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The teachers were asked to indicate the extent to which the teacher-counsellor in their schools keep information on clients confidential and as shown in the Table 16 above, majority 115 (70.6) showed that there is no confidentiality, 22 (13.5) indicated there is good standard of confidentiality and 36(16.0) shows that in most times, they keep the information confidential. This could be the reason why students have a negative attitude towards guidance and counselling service and do not therefore go for services.
From the document and resources, the study conducted in the 18 sampled schools, Table 8, above, revealed that majority 11 (61.1) of the schools have offices or rooms from where guidance and counselling activities are conducted. A slightly smaller proportion 7 (38.9) lacks this important facility. The slightly higher percentage of schools having the rooms or offices are in line with the MOEST recommendations, Republic of Kenya (2000) that the Head teacher has to recognise the importance of privacy and respect for confidentiality of Counselling relationships by providing a room or office.

Almost all the schools 16 (88.9) have no reference materials or books and only 2 (11.1) have a few references which are usually kept by the teacher-counsellor in guidance and counselling office. All the schools under study had not reserved section in their school library for guidance and counselling materials or career literature for career counselling which students could refer to. This shows that students are not exposed to guidance and counselling materials and career literature apart from the face to face Counselling they receive from their teacher-counsellors. It is necessary to have guidance and counselling centres stocked with newspapers, magazines, books, films and other relevant materials that can help students (Mutie and Ndambuki, 1999).

On related issues all the 18 (100) schools checked, had no notice boards set aside for guidance and counselling materials and announcements. However, teacher-counsellors revealed that they utilise the schools’ assemblies to pass information to both the teachers and students. This shows that schools neglect the issue of placing guidance and counselling materials and announcements on the notice boards and yet issues and concerns about guidance and counselling are raised even in the print media very often.

In almost all the schools 16 (88.9), Teacher-counsellors kept no records on students, for example, personal information files, academic records or health records while a small proportion 2 (11.1) indicated that the departments kept students’ information records.

On the general organisation of the department, 3 (16.7) of the schools had well organised offices, strategically placed, always opened with good filing, shelving and posters in place while 15 (83.3) which include the 7 (38.9) that had no offices or rooms and were operating from the staff rooms, which in most cases are congested, and lacked organisation, therefore, no privacy and confidentiality.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AVAILABILITY</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents / Resources</td>
<td>Available</td>
<td>Not Available</td>
<td>TTF</td>
</tr>
<tr>
<td></td>
<td>No/Percentage</td>
<td>No/Percentage</td>
<td>Percentage</td>
</tr>
<tr>
<td>Offices (Rooms / guidance and counselling Centre)</td>
<td>11 (61.1)</td>
<td>7 (38.9)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>Reference books</td>
<td>2 (11.1)</td>
<td>16 (88.9)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>Section in the library for guidance and counselling literature</td>
<td>00 (00)</td>
<td>18 (100)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>Notice board for guidance and counselling announcements</td>
<td>00 (00)</td>
<td>18 (100)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>Good general organisation of guidance and counselling department</td>
<td>3 (16.7)</td>
<td>15 (83.3)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>(filing, shelving, posters)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students personal information files (confidential files / records)</td>
<td>2 (11.1)</td>
<td>16 (88.9)</td>
<td>18 (100)</td>
</tr>
<tr>
<td>Programmes (correspondence, time tables, among others )</td>
<td>2 (11.1)</td>
<td>16 (88.9)</td>
<td>18 (100)</td>
</tr>
</tbody>
</table>
Regarding whether the guidance and counselling programmes had a timetable or not, majority 16(8.9) had no programmes organised and put on time table. In any case, both teachers and students indicated that guidance and counselling takes place when a need arises. This reveals that guidance and counselling is done haphazardly in most schools. This really affects the effectiveness of the programmes or teacher-counsellor as MOEST (1977) noted that lack of specific time set aside for guidance and counselling was hampering the success of the programmes. It, therefore, advocated for specific times set aside for school timetable for guidance and counselling programmes.

Drawing from Table 8, it can be concluded that the provision and organisation of resources in guidance and counselling departments are still wanting, and therefore, there is a need for schools to implement the MOEST recommendations of the Wangai Report (Republic of Kenya 2001), that required the head teachers to provide material, equipment and facilities such as an office, filing space, forms for securing data from the learners, folders to contain counselling notes, shelves for books, filing cabinets, notice boards, desks and chairs. Mutie and Ndambuki (1999) add that the provision of the guidance programmes must be made in the school time table as well as in the budget to facilitate guidance activities such as maintenance of cumulative records, arranging for career and orientation talks, screening of films or plant tours.

Drawing from the document and resources studied, the following was revealed:

1. Almost all the schools (88.9) have no reference material or books.
2. Majority (88.9) of the teacher-counsellors kept no records on student’s personal information.
3. On guidance and counselling programmes, 2 (11.1) of the teachers had correspondence and time table records whereas 16 (88.9) had no programmes, correspondence and time tables on records.

5 Conclusions

1. Majority of the teacher-counsellors in Nandi North District kept no records on students in their offices.
2. A majority of the teacher-counsellors had no reference materials or books in that area.
3. The general organisation of guidance and counselling departments are still wanting.
4. A majority of the available offices or rooms had no files, shelves and posters.
5. Most of the schools in the districts had guidance and counselling services.

6 Recommendations

The following recommendations were made to improve the performance of the teacher-counsellors and the guidance and counselling departments.

1. The Government (MOEST) should train teachers on guidance and counselling and deploy them to schools.
2. Already appointed teacher-counsellors should be trained and refresher courses be provided more frequently so as to inject new knowledge consistently to the teacher-counsellors.
3. There should be time schedules for guidance and counselling services which should also be reflected on the school time table.
4. Schools should provide well equipped guidance and counselling offices as guidance and counselling activities can be effectively coordinated and provided for.
5. The university and teacher training colleges should offer guidance and counselling as one of the core study subjects.

7 References


Nation (1998 April), Guidance and Counselling Teachers Failing in “Sunday Nation”.


A Framework for Implementing Sustainable E-learning Information Systems in Developing Countries: A Case of Africa

Kituyi, Geoffrey Mayoka; Moya, Musa and Kyeyune, Robert – (Makerere University Business School, Kampala)

1 Abstract
E-learning has become a method of choice for delivering low cost good quality education to many, especially where resources are scarce (Keats, 2007; Leach, 2005; Pye and Stephenson, 2003). E-learning systems have succeeded in developed countries largely due a mature private sector and good infrastructure. In contrast however, many e-learning systems have either failed to kick start or died at infancy stages in developing countries. In this paper, we review the existing e-learning frameworks in terms of developing and implementing sustainable e-learning systems. We find that the existing frameworks, while they apply in the developed world where there is good infrastructure and skilled personnel, they have failed to work in developing countries where most of the infrastructural development is a primary role of governments and where there is an acute shortage of skilled manpower. We then design a hybrid framework from these frameworks that is more applicable in developing countries, with an emphasis on stakeholder roles.

Key terms: E-Learning, E-Learning Framework, and E-Learning Information System

2 Introduction
Over the past decade, ICTs have played a leading role in organisational efficiency. ICT is now a key element for organisational survival both in developing and the developed world. However, while the implementation of these technologies has succeeded in the developed world, there is an alarming failure rate in developing countries (Mann, 2002). Attempts have been tried to curb down the trend but with no tangible results as it is difficult to establish the determinants for evaluating Information Systems (ISs) success or failure (Galletta and Lederer, 1989). Nevertheless, Elder (2001) suggests that ISs provide important backbone for service delivery in community and therefore they require “constant, dependable operation in the face of various failures, whether natural disasters, and other disruptive events that might cause a loss of service”. This is in line with Galletta and Lederer (1989) who emphasise that there is a “critical” need for the ability to objectively evaluate information systems’ failure or successes in order to enable system developers to build better and more acceptable information systems.

3 Background of the Study
The surging numbers of students enrolling for schools have left most developing countries in severe stress due to the limited educational infrastructure (Kisubi, 2008). Consequently, e-learning has become arguably a technology of choice in order to deliver quality education to masses remotely
with little need for class rooms and teachers (Keats, 2007; Leach, 2005; Pye and Stephenson, 2003). Trucano (2005) argues that if well implemented, ICT-based teaching initiatives can significantly improve motivation, creativity and alternative pedagogical approaches towards learning. However, this may not necessarily be true as most e-learning systems have failed even before they complete implementation. This leads to resource wastage, due to inappropriate framework, ineffective implementation and lack of sustained commitment to the project by both the implementers and the e-learning system developers (Wagner et al., 2005).

Mann (2002) argues that IT failures were initially high because the traditional computer scientists had problems building acceptable IS for the business community and suggests that because of this, ICT courses were introduced in business schools that would develop curricula aimed at increasing IS acceptance. However, many years later, the percentage of unsuccessful IS is still alarmingly high, hence concluding that IS researchers tended to focus more on project level issues and ignored the ever growing conflict between end users and developers of IS (Mugaba, 2002).

Research has been carried out on the role of ICTs in addressing educational challenges in the developing world, notably in Africa in recent years (Keats, 2007; Leach, 2005; Pye and Stephenson, 2003). However, Hollow and ICWE (2009) state that despite all these developments, there have been no deliberate efforts for researchers to involve e-learning practitioners in the African continent. Therefore no significant research achievements have been made in regard to establishing the success rate of e-learning IS in the developing world context. Mani (2002) argues that the IT-User gap is one of the main causes of IS failures. Higher education notes that this gap is persistent and takes many different forms to the extent that several organisations are taking matters into their own hands by creating new hybrid positions such as relationship managers, IT-User Liaison officers among others to help bridge the gap by helping end-users deal with the IT personnel and vice versa.

Despite all the e-learning failure cases, many scholars agree that technology in education constitutes an inherent good which cannot be ignored (Unwin, 2008). This paper presents an appropriate framework for developing sustainable e-learning IS in developing countries, done by carrying out a critical analysis of the existing e-learning frameworks.

4 Research Methods Used

The framework presented in this paper is entirely based on literature review, although a few experts were consulted for opinions. A systematic review of e-learning literature in the developing world was carried out. We gathered a diversity of perspectives on the topic of e-learning from a variety of scholars. Over a hundred papers were identified on this topic by searching through Google Scholar and PDF Queen. Key words such as “e-learning frameworks”, “e-learning systems”, “e-learning in Africa”, “e-mail learning,” and “online teaching” were searched. Out of the over 100 papers gathered, only 10 were selected for a deeper review (Andersson and Grönlund, 2009) and analysed if they met the following 3 conditions:

1. If they discuss the design and or implementation of e-learning Information Systems.
2. If they aim at implementing e-learning in Africa or any other developing region or country.
3. For papers that target developed countries, they had to significantly contribute to e-learning implementation issues that could be replicated in a developing country setting.

From the literature, we identified key stakeholders and their roles in e-learning projects. These stakeholders and their respective roles were then modelled using Microsoft Word’s drawing tools to create the framework. To validate our framework, we sought expert opinion from selected experts in education, e-learning and IS at Makerere University Business School and the Ministry of Education and Sports of the Republic of Uganda.
5 Review of Existing E-Learning Frameworks

Broadley (2007) studied three schools in Australia and designed a framework for implementing e-learning. In his framework, higher education identifies the teacher as an important stakeholder in e-learning projects and suggested that for successful implementation of e-learning, the teachers must be mindful of the ICT infrastructure and leadership needed to support their pedagogy, provide the resources and delivery strategies necessary. On the other hand, Fox and Trinidad (2006) developed a structural framework for implementing e-learning, which they referred to as “technology-enhanced learning”. Based on the works of Herrington et al (2001), this framework describes three components of the e-learning process. These components are resources, pedagogies and delivery strategies. Herrington et al (2001); Fox and Trinidad (2006) define resources as the “learning content and forms of information that are provided to the learner” and suggested that these resources are presented in various forms and did not need to be all online. On the other hand, pedagogies are the activities used to engage the learner and provide the learner with opportunities to construct their own meaning through collaboration and a learner centred environment. Fox and Trinidad (2006) further argue that delivery strategies are those that promote accessibility and reliability to the e-learning environment as Oliver and Herrington (2001) state that the ability to design inclusive e-learning systems for learners and facilitators located in distant geographical locations is critical. However, Fox and Trinidad’s (2006) framework is considered to be highly technological and only considers resources, pedagogy and delivery strategies, while ignoring salient e-learning implementation issues such as stakeholder roles.

Similarly, Khan (1997) developed an e-learning framework with eight pillars – higher education argues that the e-learning process is affected by pedagogical, technological, interface design, evaluation, management and resources support, ethical and institutional factors. Khan’s e-learning framework is said to be useful because it considers e-learning from a “holistic perspective” (Cronje, 2006). However, Prestera (2006) refers to Khan’s e-learning framework a “coffin” as it places pedagogical issues at the same level and weight with all the other seven pillars, although it is very clear that pedagogy should always be number one design issue for e-learning platforms. In his article, Prestera (2006) advises his readers to put the learning back into the class. However, critics to Pretera’s approach to e-learning have discarded his approach towards e-learning and subsequently branded him the “grave digger” for e-learning (Cronje, 2006; Hollow and ICWE, 2009).

6 Summary of Findings on Existing E-Learning Frameworks

Hollow and ICWE (2009) suggest that the three most significant consequences of introducing e-learning are student motivation, improved student attainment, and increased value of education in the community. While Broadley (2007), in his study, found out that e-learning enable teachers to cater for their students’ individual needs better than previous attempts, CERI (2005) suggests that although e-learning is advantageous, there is a critical need for a clear sustainable business model and further argues that there is a need to provide flexible pedagogy and personalised materials to students for successful e-learning. Fox and Trinidad’s (2006) framework is considered to be highly technological and considers only three factors (resources, pedagogy and delivery strategies) of e-learning, while ignoring salient implementation issues. Some frameworks have been branded as “graves” while others considered totally irrelevant in the developing country context.

Generally, we realised that while the above frameworks were relevant and worked to achieve the goals for which they were designed, they did not for some reasons cover some very important aspects of successful e-learning design and implementation in developing countries. We find that most of e-learning implementation responsibility had been placed on the school. Particularly, the roles of Government, the private sector and the learner are ignored; moreover these are very critical stakeholders in e-learning projects in the developing world.
7 New E-Learning Framework for Developing Countries

In this framework, we identify 5 key players in an e-learning environment in developing countries; the government, the school, the private sector, the teacher and the learner. The government is the policy maker and primary source of funding not only for e-learning projects but also for a cross section of educational programmes ranging from infrastructure, training and capacity building, staff salaries and curriculum development. The school deals with pedagogical issues, interface design, staff motivation, training, security and ethics, evaluation and maintenance, management and leadership. While the main role of the private sector is provision of technical support and innovative products, the teacher's role is to teach and evaluate students in addition to monitoring and continuous assessment of learners. The teacher also provides counselling services to the learner. On the other hand, the learner is students who use the e-learning platforms with their teachers. They are expected to attend “lessons” on personal initiative, do and submit their assignments in time and last but not least conduct themselves ethically. The roles played by each one of these stakeholders and how they are interlinked are summarised in Figure 1 below:

Figure 1: Stakeholder Roles for Sustainable E-learning

Application of the Framework

This framework is applied at three main top levels, that is, the government, the school and the private sector, although its success is influenced by the other two lower levels – the teacher and the learner. Generally, we established that there are three support pillars and two user groups of e-learning in developing countries. The support pillars include the government, the school and the private sector, while the two user groups include the teachers and learners. The first three generally provide support services such as infrastructure, equipment, staffing, policy issues, technical support that facilitate the initiation, implementation and maintenance of an e-learning system in a given school, while the last two ensure proper usage of the systems put in place. The school takes a lead role in designing user interfaces and developing content with the help of teachers and the private sector. The government is partially linked to teachers because of the employer-employee relationship – although governments do not directly supervise teachers, in most developing countries they are the main employers of teachers through the public service. While the students have a partial linkage
with the private sector because of the indirect support they get from the private sector such as training and internship.

**Limitations of the Framework**

This framework does not look at other issues that affect technological diffusion and transfer from the developed world to developing countries other than identifying e-learning stakeholder roles and tasks. We have not also included the role played by the donors in sustainable implementation of e-learning in developing countries. It is therefore on the basis that we recommended further research on the two areas.

**Conclusion**

For successful design, implementation and maintenance of e-learning systems, the various stakeholders and their respective roles must be clearly identified. We have identified the five stakeholders and the roles and/or tasks involved in an e-learning environment. We go ahead and allocate these tasks and roles to individual stakeholders identified basing on literature and what happens on ground. We have also shown that e-learning is not a onetime event but rather a continuous process of monitoring and performing self-checks. We have identified the key players as the government for its infrastructural support, the school for leadership role and the private sector for innovation and technological support necessary for initiating and running e-learning systems. We have also shown the “influential” role that is played by the two participating minor stakeholders; the teacher and the learners. We therefore can now conclude that the new framework, if well implemented can lead to the successful design and implementation of sustainable e-learning IS in developing countries.

**Recommendations**

This framework mainly looks at stakeholder roles for successful design and implementation of e-learning ISs. The identified 5 stakeholders may not be representative enough as there may be other key stakeholders, depending on the circumstances. For example the donor community is very influential in cases where e-learning systems have been funded them. There is therefore a need for further research aimed at analysing the role of donors and also identifying other stakeholders needed and the roles they play in sustaining e-learning IS in developing countries because sustainability of e-learning is a very contentious issue.

**8 References**


Broadley Tania (2007). *Implementation of E-Learning: A Case Study of Three Schools Curtin University of Technology (SiMERR WA).* AARE

Cronje C. Johannes (2006). *Who killed e-learning?* Cape Peninsula University of Technology


Herrington, A., Herrington, J., Oliver, R., Stoney, S. & Willis, J. (2001). *Quality guidelines for online courses: The development of an instrument to audit online units.* In G. Kennedy, M. Keppell, C.


Communication Industry and Higher Education: The Learning in E-learning

Nyaole, Rosemary-Kowuor (Daystar University, Kenya)

1 Abstract

The world has become a global village as Marshall McLuhan predicted in the early 1960s, thanks to technology advancement. As Baran (2004) stipulates, “current trends in the media industry has resulted in a steady erosion of traditional distinctions among media.” People can now read a wide range of newspapers and magazines on their computer screen or mobile phone. Manufacturers now produce web TV, making it possible for families to curl up in front of the big screen for online entertainment and information. The traditional distinctions between media are vanishing.

We are becoming increasingly comfortable receiving information from a variety of sources. Students now have access to information at the click of a button. How does this impact on learning? An educationist has to be technology savvy to remain relevant and competent. This calls for learning other techniques of information delivery to make the message as palatable as possible.

This paper points at the need for adoption of an integrated approach to learning for educationists to stay afloat and be able to integrate knowledge from different disciplines and apply them to meet industry needs. Its focus is the role of eLearning in enhancing quality and relevance in higher education.

Key words: E-learning, Moodle, Technology, Quality, Relevance

2 Introduction

When considering technology in their teaching, many instructors begin with questions about various technology tools: Should I use PowerPoint? Do I need to create a course web page? What programmes are best for getting started? Is this the best approach to technology integration? McKeachie (2002) points out that the use of technology is more likely to be effective and appropriate, facilitating student learning and increasing our own productivity, if there is a careful examination of the various factors involved in the teaching and learning process rather than a focus solely on types of technology.

As Marshall (2006) observes, “the nature and quality of our minds are powerfully shaped by the nature and quality of the learning environments which we are immersed, activated, and nurtured.” How we are asked to learn, therefore, matters profoundly because, as higher education puts it, “mind shaping is world shaping.” Historically speaking, when Kenya attained independence in 1963, there was ardent need for Africans to take up jobs that were previously held by colonial masters. Education, therefore, became a prerequisite to acquiring a white collar job. Most people attained education solely for this purpose. This is no longer the case in entirety. The reality is; the numbers of learned and highly educated people have outweighed the available job opportunities. Yet, in O’Sullivan’s (1999) words, “the wisdom of all our current educational ventures in this twenty first century still serves the needs of our present dysfunctional industrial system.”
Our present educational institutions which are in line with and feeding into industrialism, nationalism, competitive transnationalism, individualism and patriarchy are hence be fundamentally called into question. All of these elements fuse into a world view that aggravates the crisis we are now facing – joblessness, hopelessness, dependency syndrome among others. Education, in this century, need to go beyond a mere tool for job preparation. It must provide an avenue for transformative learning. The kind of learning that nurtures our minds to fully exploit our potentiality regardless of whether we are in anybody's payroll or not. How possible is this? What role then, does technology play in enhancing this quality and relevance in continuing education?

Teaching with Technology

As Toure (2008) contends, technology on its own will not bring about improvements in educational quality, but when we change our mind sets to use them reflectively and strategically, teaching and learning processes can be deepened. This includes leaving behind paradigms of teacher as master. Innovative and contextualised usage of new technologies contributes to more active and interactive learning, increased motivation, updated teaching materials, discovery of self and others, and changed roles and relationships among teachers and students and with knowledge. Learning can become more dynamic as teachers and students become partners in accessing information, constructing relevant knowledge, and representing self and others. What has all these got to do with relevance and industrial development?

From a systems approach, teaching with technology involves four major components: the students, the instructor, course content, and technology tools (McKeachie 2002, pg 206). An examination of each component raises a set of issues that we need to consider in order to make technology integration as successful as possible. For example, content can be examined in terms of learning outcomes and the discipline being taught. As instructors, we can think of our own experience with technology, the amount of time we have for planning and teaching, and our role in the teaching and learning process. We need to think carefully about our students, their exposure and access to technology, as well as their preferred learning styles in relation to industrial needs. What follows is an integrated analysis of the context of teaching and learning in the light of the four components of technology cited above.

3 The Context of Teaching and Learning

Course Content

When considering any technology tools for instruction, we need to examine our instructional goals: What do we expect students to learn from the class? What skills and knowledge do we want them to acquire by the end of the semester? What teaching strategies will best help students achieve these goals? Once we have answers to these questions, we can choose “the appropriate technologies to support our goals and design appropriate learning activities to incorporate those technologies into our course” (McKeachie 2002, pg 207). As we seek the best approach, it is imperative that we put industry needs into perspective.

For instance, journalist reporters and writers, in this century, no longer require to deliver recorded materials physically back in media houses. They can comfortably deliver such information electronically using their mobile phones and lap tops or other gadgets. This training ought to be perfected while they are learning. How? Have them submit the many assignments electronically via the e-learning or any other available platform. This way, they help conserve the environment (limited paper work) and also get well acquainted with the reality in the field (e-communication).

When the learning objectives are at the knowledge or comprehension level (Bloom, 1956), we may use technology tools that support information delivery or programmes that reinforces and help apply the knowledge that students have learned. On the other hand, when the instructional goals are at the application/analysis or synthesis/evaluation levels (ibid), it is appropriate to provide students
with a complex technology-enhanced learning environment, in which they can apply, integrate, and make sense of what they have learned.

For example, if my goal is for students to record and remember factual material effectively, I might want to improve readability of lecture topics and outlines, and find an easy way to give the tools that can help me achieve this goal. However, if I also wish to promote critical thinking through active learning during lectures, PowerPoint alone may not be the best choice; presentation software can lead to a lecture-centred and student passive mode of instruction (Creed, 1997). To avoid placing students in a passive learning mode, I will need to incorporate activities that engage students in active thinking, reflecting, and performing tasks. I could use the peer instruction teaching method (Mazur, 1997) in lecture, to reinforce students’ understanding and engage them in thinking. With this approach, an instructor poses a conceptual question; students discuss possible answers in pairs, and then vote electronically for the correct answer. It would be more helpful if the ‘conceptual’ question puts into perspective current issues in the related industry. The instructor must make sure the discussion is centred on reality in the field, not mere discussion questions posted in textbooks most of which reflect western ideologies may not apply to real situations in an African industrial set-up.

The instructor then has immediate feedback about how well the students have understood the concept. We could also extend students thinking beyond the class by setting up an online class discussion using web-based conferencing programme. This is very ideal for continuing education students as most of them have no time for face to face discussion forums. However, they can spare time during lunch or tea breaks to conduct online discussions. Moreover, most corporate discussions are now conducted electronically, for example, teleconferencing, video/audio conferencing, skype among others. It is imperative for continuing education trainers to adopt these technologies in order to equip learners for the current job market. Nonetheless, as we do so, we must be in touch with reality in the field with regard to the different courses we teach.

The discipline we teach, as well as the goals we set for student learning, will affect our decisions about which technologies are most appropriate for a given course. In some disciplines, technology is a standard part of professional work in the field, and decisions about technology integration need to take these realities into account. For example, students learning statistics in the social sciences will need to have experience with spreadsheets and other statistical software. Which programme to choose could depend on which package allows students to perform the most relevant operations. Broadcast journalism students need to keep pace with fast-changing broadcast software like avid Xpress, oats, cool edit pro (now adobe audition), final cut. The more they use these in their production exercises/assignments the better they become equipped for the industry.

The Instructor

Once we have a clear view of the course content and how technology can support our instructional goals, we will need to ask some questions about our own skills and attitudes: how skilled and experienced am I in using technology? How much time do I have for course planning and preparation? And how do I think of my role as a teacher?

If we have relatively little experience using technology, it might not make sense to move to a technology-rich environment even if our course goals would support such a shift. Instead, as McKeachie (2002, pg 21) suggests, we can start slowly with tools that are established and easy to use so that we build our confidence and support our students’ learning. Technology-rich learning environments are often most successful when students are actively engaged. In this case, teaching with technology will involve guidance, mentoring, and coaching of students. This is quite applicable to our continuing education students, most of whom are already experts in given areas in the field. I find it necessary to establish their areas of strength and put them in charge of class when covering those topics. I have found this to be very effective as most of the students are upbeat about sharing their expertise when given a chance. They go out of their way even to avail first
hand information or ideas that the instructor may not have access to. I experienced this when I was teaching a Broadcast programming course. When students were given opportunity to take charge of their learning, they availed more current and relevant information that was not available in our university library. They are more in touch with reality in the field as opposed to the instructor who relies heavily on textbooks, most of which only cite scenarios in the West. All we need to do is be willing to empower the students.

Besides, as an instructor, I have to be on the look out for latest technology in the industry and adopt it as soon as possible. I just discovered more recently that the well known audio editing software - cool edit pro - is now called adobe audition. The new version has additional features to render it more user friendly, but the principles remain the same. I discovered this when a student on attachment got confused when higher education was asked if higher education has ever been taught how to work with adobe audition, to which higher education answered ‘no’ yet higher education was quite conversant with cool edit pro. When we involve our students in the learning process, it becomes easier to adapt as they have different levels of exposures with latest technology. Most students are more than willing to share their knowledge in line of their expertise if given a chance. When they are empowered to take charge of their learning process, the instructor equally learns a lot from the students. So we should not fear to find out what our students know that we don’t know and learn from them as well.

**Students**

We need to consider students' previous experience with technology, their access to technology, and the variety of learning styles they bring to our course. Explaining why we have incorporated technology into the course – and being able to frame our explanation in terms of improving student learning – can help. Bigs (2003, pg 212), rightfully observes that “technology tools offer great flexibility in creating learning activities and environments to meet various learning styles and needs”

Just as technology has the potential to change the role of the instructor from centralised dispenser of knowledge to guide or mentor, it can also shift the students’ role from passive recipient to active participant. Active participation requires students to take new responsibilities, such as mentoring their own learning goals, setting priorities, and controlling the pace of their own learning. An example is the well-acclaimed moodle, elearning platform, which has several features that can help sharpen both the learners and instructors skills. We can take advantage of its many features, to exchange ideas over lesson topics and issues affecting the industry. This way, students become critical thinkers and become more analytical of latest trends in the market place.

**Technology Tools**

Now that we have carefully considered the context of teaching and learning, we can turn to an examination of the technology itself. How can technology facilitate teaching and learning? Not all tools are the same. Some can assist learning in one content area only; others are useful for a range of disciplines. Some technology tools are built with specific instructional goals in mind; others are not. To examine the appropriate uses of these various technologies, let us look at how McKeachie (2002) has categorised each tool according to its functions and uses. Communication technology enables users to communicate with one another in three modes:

1. One-to-one communication via telephone or e-mail allows comparatively private conversation between a student and an instructor.
2. One-to-many teleconferences or listservs offer the means to broadcast information to a group.
3. Many-to-many communication, such as threaded electronic discussion, allows students to exchange ideas and opinions and collaborate with one another on learning tasks.
For example, students can ask the instructor questions via e-mail and receive answers and explanations electronically. I will draw more examples based on what I am well acquainted with, Moodle.

Moodle is the world's most popular online learning management system. It is a free, open source Learning Management System (LMS) designed to help educators and trainers create online course with opportunities for rich interaction with their students. Moodle teaching techniques provides forum, chat, quiz, wiki, glossary, choice activity, course and workshop solutions. What follows is a brief explanation of the different Moodle features based on personal experience and ideas borrowed from Rice IV (2007):

**Forum Solutions:** Forums are one of Moodle's most powerful features. A well run class forum can stimulate a thoughtful discussion, motivate students to become involved, and provoke unexpected insights. However, a forum that has gone off track or gotten out of hand can stifle discussion, keep students away from the class, and degrade into irrelevant discussion. In classes that require student participation, Moodle's log files can quantify a student's participation in class discussion. Splitting a discussion can bring it back on track, when it has been taken over by an unintended subject. Whenever I need to involve students in a discussion, a Moodle forum offers a place for students and me to have a productive discussion out of class.

**Chat Solutions:** The key to making the best use of Moodle's, or any LMS's chat function, is to use chat in a way that takes advantage of its unique strengths, instead of trying to make it act like a face-to-face meeting. During online chat, students do not need to deal with the fear of public speaking. Transcripts can be edited and used as course material. And conversation can continue at a leisurely pace. This gives participants time to think. The key to using these advantages is preparation. Prepare your students by ensuring that they know chat etiquettes and focus on the goals and subjects of the chat. More that any other online activity, chat requires that the teacher takes on a leader's role and guided the students to a successful learning experience. With fibre optics, the many radio and television talks shows are most likely going to be conducted with participants not necessarily in the studio. This will be no surprise to our students who already conduct such forums on Moodle.

**Quiz Solutions:** A quiz can be more than just a test. At its best, a quiz can also become a learning experience. Moodle offers features that help accomplish this. An instructor can use the settings for Attempts allowed and Each Attempt builds on the last to enable students to try a quiz several times. After each attempt, the student can retain the correct answers and work on the wrong answers. We can use Adaptive mode to create questions that allow multiple attempts immediately after the student has entered an answer and then change their feedback according to the student's answer. With the right approach, perhaps we can change things enough so the words test and quiz no longer scare so many students, but are something that they look forward to. This also adequately prepares our Media students to adequately handle Quiz Shows.

**Lesson Solutions:** A moodle lesson can be a powerful combination of instruction and assessment. The key to making best use of them is planning. When creating a lesson, plan the flow within the lesson. For example, I favor a flow that puts a non-interactive, reading or viewing activity first, then an interactive lesson, followed by a quiz, and finally a chat or forum for review. Since a lesson offers both presentation and question capabilities, it is tempting to try to make it do the work of both a web page and a quiz. However, a lesson functions best when used as a bridge between those two resources.

**Wiki Solutions:** A wiki is a powerful tool for collaboration, and it does enable students to participate in a group activity from anywhere, and at any time. However, as Rice IV (2007) observes, a wiki can also be a powerful tool for individualized learning called differential learning. It means that the learning experience should be customized for each student. With individual wikis, I can differentiate the learning experience for my students.

This is quiet ideal for continuing education students as most of them have no time to meet lecturers during office hours. More so, most office communication is also conducted electronically.
The students are therefore well prepared for the reality in the field. Their learning process renders them more equipped in meeting current industry needs and upbeat with modern technology.

4 Conclusion

Technology is here to stay. With the fibre optics and digital technology, we have no choice but to take advantage of the many technological tools available to facilitate learning process. Many features in elearning are carefully chosen to support a philosophy of learning, called “social constructionist pedagogy” (Rice IV, 2007). This style of learning and teaching is based upon four concepts: students acquire new knowledge as they interact with their environment, course activities and other students; Students learn more when they construct leaning experiences for others; When they become part of a culture, they are constantly learning and; some students try to remain objective and factual, some try to accept more subjective views, and others try to integrate both approaches (Savory, 2007). Whatever the case, technology plays a crucial role in fostering this philosophy and maintaining quality and relevance in higher education.

5 References

Mobile Telephony and Rural Household Income Growth in Uganda

Ggoobi, Ramathan and Nabeta, Isaac Nkote – (Makerere University Business School, Uganda)

1 Abstract

Does mobile phone penetration increase incomes of rural households? The spread of mobile phone technology in the last two decades has raised debate about its value as a tool for fighting poverty, but literature is empirically inconclusive on the causality between mobile phone and household income. This study uses data from Uganda National Household Survey (UNHS) 2005/06 to investigate whether increased mobile phone usage leads to growth of rural household income. Estimates produced using univariate and multivariate regression analysis indicate that mobile phones do have a positive impact on the productivity of their owners and thus their incomes with strong coefficients produced across all explanatory variables. Results specifically indicate that mobile phone ownership is positively correlated with wealth, education, and male household head and negatively correlated with landline telephone penetration and age of household head. The study findings imply that the telecommunication sector should be promoted by working to reduce the cost of mobile telephony to increase its accessibility to the rural population. The findings also invoke policy makers to design strategies that would discourage mobile phone users from using mobile phones for “chatting” and “keeping in touch” with friends and relatives, especially owing to the diverse kinship structures/extended families in Uganda more so in rural areas.

Keywords: Mobile phone, Rural, Household income, Uganda

2 Introduction

Over the past one and half decades, mobile phone penetration has been consistently increasing in Uganda. Before Uganda decided to privatise telecommunications in a competitive framework by selling a second national operator license in 1994 (Shirley et al., 2002), it had only 30449 telephone lines in service (Laidlaw and Parkinson, 1995 and UTL data). Accordingly, for the period 1985 to 1994, there were only 0.22 main lines for every 100 inhabitants in Uganda (Shirley et al., 2002).

Before the arrival of the mobile phone there was no phone service at all in the rural villages in Uganda (Burrell, 2008).

Following the reforms, mobile phone operators joined the telecommunications industry, and today there is a mobile phone boom in Uganda. Since 2000, the number of mobile phone subscribers in Uganda has risen dramatically from 230,000 to 3.6 million by June 2007, with annual growth of 68 percent (Masambu, 2007). This has raised telephone penetration level to 10.34 per 100 inhabitants (Hisali, 2007). All districts and 80 percent of sub-counties in the country have a point of presence of mobile phone services (Hisali, 2007). The number of mobile network operators (MNOs) has grown to five—Airtel (formally Celtel and also Zain), MTN Uganda, Orange Uganda, Uganda Telecom and Warid Telecom. In 2010 there were about 9.9 million mobile phone subscribers across all MNOs to raise mobile network penetration to 31.4 lines per person compared...
to a national teledensity of 32.2 lines across the whole telecommunications sector (Ndiwalana et al., 2010). Yet mobile phone operators report that demand for mobile phone services in Uganda has greatly exceeded their initial forecasts and they have experienced problems providing enough capacity (Shirley et al., 2002).

The increased penetration of mobile phones in Uganda is due, in great part, to falling hardware and service prices and the spread of service availability. The spread of mobile phone technology has raised debate about its value as a tool for fighting poverty and for development. One aspect of this debate which has not received sufficient study is the impact of mobile phones on rural household income growth.

The mere fact that mobile phones and their usage and penetration are growing may not necessarily mean that the incomes of the poor, in particular those in rural areas, are improving. It was necessary to peel back the skin of mobile phone boom in Uganda to study whether the penetration of mobile phones was having a positive or negative impact on the incomes of the poor in rural areas. True, mobile phones in Uganda are accessible, provide multiple forms of economic empowerment, and due to these reasons, create the opportunity to leapfrog up household incomes of Ugandans. Sullivan (2007) posits that mobile phone surge in the developing countries (like Uganda) is the “external combustion engine”—a force that is sparking economic growth and lifting people out of poverty in countries with aid-dependent governments.

A new concept—“invisible leg”—has been coined to explain how technological innovations influence economies and that “connectivity is productivity”—a simple mobile phone has enormous power to lift the poor out of poverty (Quadir, 2006). Van-Veen (undated) supports this premise by explaining that mobile phones provide “telecommunications solutions for the rural small business sector” in Uganda. Higher education explains that rural small businesses need to get connected to markets, need information, for example, on transport and prices. But most importantly “to make a call, you need a phone to call to!” In this case the Grameen Mobile Village Telecentres, wireless payphones and low-priced mobile phones plus solar power units have become handy for the rural poor.

Prices of both mobile phone hardware and cellular services in Uganda have dropped dramatically, increasing accessibility of mobile phones in rural areas. Used mobile phone resellers have emerged; purchasing old refurbished mobile phones and resell them at low prices on the streets of Kampala and other towns. As more mobile phone network providers (MTN, UTL, and Warid Telecom) joined the cellular industry that was first introduced by Celtel in 1995, thereby increasing competition, the price of mobile phone service has decreased tenfold, making usage more affordable to the rural poor.

For example, beginning in 2007 Ugandans could buy new and fully connected handsets for as low as Ushs 30,000 (US$17) and benefit from the cut-throat pricing schemes among cellular service providers, such as 50 percent extra airtime for MTN and 100 percent free airtime for UTL during ‘super-economy’ periods. In August-October 2007, the then three competing mobile phone companies in Uganda—MTN, Celtel, and UTL—were involved in persuasive promotional campaigns where they offered their subscribers free ‘airtime’ between 10pm and 6am during weekdays. The venture was so successful that call tariffs skyrocketed which nearly brought down their network services prompting the intervention of the Uganda Communications Commission to terminate the promotion. In 2008, following the entry of Warid Telecom and the re-branding promotions by Celtel, which became Zain, MTN significantly reduced its tariff rates in what it dubbed MTNZONE. Shirley et al. (2002) emphasises that increased competition in the telecommunications sector, brought about by liberalisation, has brought down prices in Uganda.

This research sought to explore whether or not growth in mobile phone usage has translated into growth in rural household income in Uganda. The study examined whether the explosion of mobile phones has helped raise household incomes in rural areas, especially whether mobile phone services are of any relevance to the poor. Although the poor in rural Uganda may have access to mobile phones, they may be unable—because of lack of education, illiteracy, or a general
apprehension to handling new technology—to effectively utilise them for economic gain. More so, the economic gains from mobile phones could merely be an exaggeration and not applicable to the rural poor.

**Statement of the Problem**

Mobile phone penetration has been consistently increasing in Uganda. The spread of mobile phone technology has raised debate about its value as a tool for fighting poverty. Research shows that mobile phones have potential to fight poverty and to tap people’s potential. In spite of this, there are no empirical studies that investigate whether or not mobile phones contribute to growth of rural household income. Using qualitative tools, Diga (2007), in attempt to appraise household expenditure to and opportunity cost of acquiring mobile phones in rural Uganda, found that access to mobile phones and mobile phone services depended upon the sufficiency of incomes generated by the households, which calls for empirical investigation of causality between mobile phone and household income.

**Purpose of the Study**

The purpose of this study was to investigate whether increased mobile phone usage leads to growth of rural household income.

**Objectives of the Study**

The overall objective of the study was to investigate how mobile phones affect rural household income. The study was specifically intended to:

1. To examine factors that influence acquisition of mobile phones.
2. To find out the impact of mobile phone ownership on rural household income.

**Scope of the Study**

The study focused on the contribution of mobile phones to rural household income growth in Uganda. The study was carried out on a sample of households drawn across the country. It was based on data captured in the Uganda National Household Survey of 2005/2006.

**3 Significance of the Study**

Given the growing importance of the services sector in the Ugandan economy, where it accounts for 51 percent of GDP (Government of Uganda, 2010), the findings of the study will be significant in the following ways:

1. The study provides empirical evidence how mobile phones have potential to contribute to poverty reduction in rural areas.
2. The findings of the study will help policy makers come up with relevant policies to make mobile phone services relevant to the rural population so as to raise rural household incomes.
3. The study also provides a good basis for further research on the impact of mobile phones on rural poverty in Uganda, as well as in other developing countries.

**4 Literature Review**

Ever since Nathan Stubblefield of USA secured patent number 887357 for a wireless telephone in 1908 — marking the beginning of mobile phone technology — mobile phone technology has tremendously advanced and the last two decades have seen mobile phones spread rapidly throughout the world outstripping the growth of fixed telephony (Chloe, 2007; World Watch Institute, 2007; CIA, 2007).
Worldwide, mobile phones have rocketed into ubiquity. In 1992, less than one percent of the world population had mobile phones and only one third of all countries had cellular networks (World Watch Institute, 2007). Ten years later, in 2002, 18 percent of world population (1.14 billion) had mobile phones, (World Watch Institute, 2007) and by 2005, 2.2 billion people worldwide were connected (CIA, 2007). In one year, over 200 million people had got connected, thereby increasing the number to 2.4 billion in 2006 and about 59 percent of these mobile phone users were in developing countries, making mobile phones the first telecommunications technology in history to have more users in poor countries than in the developed world (Sullivan, 2006).

This invention brought with it interesting economic patterns that fall in one of those unique models that have defied conventional economics wisdom when it comes to designing and hypothesising what works and what doesn’t work.

The question, however, remains: Has the upsurge of mobile phones in Uganda translated into poverty reduction? Do Ugandans, especially the rural poor, exploit this mobile phone to its full potential, both in terms of its functions as well as the economic functions it potentially can perform?

This paper analyses the advancement of mobile phone technologies in Uganda, appraises the connection and usage trends, especially among the rural poor. It tackles the challenges that lay ahead of Uganda to fully exploit the potential of mobile phone technology to reduce rural poverty. It also offers policy recommendations and directions for policy-makers.

**Mobile Phone Technology and the Economic Pyramid Model**

The mobile phone in Uganda has increasingly come to perform a number of activities among different segments of the society. In 2005, the Grameen Foundation, in collaboration with MTN Uganda, introduced in Uganda a ‘village phone’ drive to provide mobile phone communication to the rural poor (Keogh et al, 2005). Village Phone is a methodology that creates a profitable partnership and a channel to market to bring telecommunications services to the rural areas of a developing nation (Keogh et al, 2005). It offers a framework to extend telecommunication service to the rural poor in countries where an investment has already been made in mobile phone infrastructure. Village Phone is based on a business model that is sustainable for all of the participants and enables the poorest of the poor to have access to valuable communication services.

Through this telecommunications service, rural individuals can gain access to information that increases their productivity, earns better prices for the goods they produce, and saves on the direct and opportunity costs of travelling away from home (Keogh et al, 2005). The Village Phone model is an economic pyramid model that is being used as a development model. It thus deserves critical analysis and comparative juxtaposition.

The Ugandan Village Phones are a replication of the “phone ladies” model first introduced in Bangladesh by the Grameen Bank (Keogh et al, 2005). In Bangladesh there is over a quarter of a million “phone ladies”. The phone ladies buy mobile phones on credit from Grameen Bank, providing wireless communication for the community though their personal aim is to provide themselves with a livelihood. The Village Phones provide for an estimated 60 million people living in rural Bangladesh (Quadir, 2006). By leapfrogging fixed infrastructure and leveraging existing wireless infrastructure, Village Phones offer a viable strategy for increasing teledensity in developing countries and helping the poor lift themselves out of poverty. They earn money while generating business opportunities for others.

This is the same economic pyramid model that has been replicated in Uganda through private entrepreneurship initiatives with similar underlying economic motives as those that worked in Bangladesh. The rural peasants get their communication nightmare solved, while they earn income in the process through transfer payments. In this economic pyramid model, the mobile phone companies themselves earn income by selling the handsets and “airtime”, while government earns tax revenue (Akampumuza and Ggoobi, 2008).
A new concept—“invisible leg”—has been coined to explain how technological innovations influence economies. In a video lecture, Quadir explains why “aid does damages: because it empowers authorities instead of people,” and advocates a new approach to development from below—“by the people for the people”. Higher education reveals “Connectivity is productivity” a simple mobile phone has enormous power (Quadir, 2006).

Sullivan (2006) explains how “village phones” have helped build a thriving economy in Bangladesh, with thriving companies like the GrameenPhone with more than $200m in annual profits. GrameenPhone’s successful effort to provide universal telephony using micro-loans created income opportunities for the rural poor and billions of dollars in national income in Bangladesh and other developing countries, including Uganda (Keogh et al, 2005). In Bangladesh and India, poverty fell by 9 and 10 percentage points respectively between 1996 and 2006 (Rodrik, 2007).

**Growth Trends of Mobile Telephony in Uganda**

In 1995, Uganda had 38,000 main telephone lines with a telephone density of 0.22 per 100 inhabitants (Masambu, 2007). By June 2007, there were 3.6 million mobile phone subscribers in Uganda, with annual growth of 68 percent (Masambu, 2007) and the number had grown to 4.7 million in January 2008 (Daily Monitor, January 11, 2008). Ugandans could buy new and fully connected handsets for as low as UShs. 39,000 (US$22) and benefit from the cut-throat pricing schemes among cellphone providers, such as 50 percent extra airtime for MTN and 100 percent free airtime for UTL during ‘super-economy’ periods (In August-October 2007, the then three mobile phone companies in Uganda—MTN, Celtel, and UTL—were involved in persuasive promotional campaigns where they offered their subscribers free ‘airtime’ between 10pm and 6am during weekdays. The venture was so successful that call tariffs skyrocketed. This explosion nearly brought down their network services prompting the intervention of the Uganda Communications Commission to terminate the promotion).

While launching WARID Telecom, Uganda’s fourth licensed telecommunication company in January 2008, President Yoweri Museveni promised to further stimulate the competition, and make mobile phone services in Uganda cheaper, by reducing taxes on mobile phone services like airtime (Daily Monitor, January 11, 2008). This seemingly political overture was in reality an economic policy statement, borne out of the Government’s realisation of the role of the mobile phones in spurring growth and bettering citizens’ lives, especially in the rural areas.

However, there is need to investigate whether these political overtures have been translated into concrete policies, and whether such policies are helping the poor in rural areas to boost their incomes.

**Mobile Phones, Financial Intermediation and Economic Growth**

Waverman et al (2005) provides an econometric “proof” that adding 10 mobile phones per 100 inhabitants in a developing country adds 0.6 points to annual GDP—which presupposes that GDP will rise from say 5 percent to 5.6 percent. The United Nations estimates that 0.6 percent growth cuts poverty by 1.2 percent. Other studies have indicated that on average every extra one percent of GDP growth—moving from, say, 2 percent to 3 percent growth—reduces poverty by 2 percent (Sullivan, 2007).

Mobile communications networks, in addition to the openness of the economy, the level of GDP and other infrastructure, have been positively linked with Foreign Direct Investments (FDIs) (Williams, 2005). To this end, 62 percent of the small businesses surveyed in South Africa and 59% in Egypt said they had increased profits as a result of mobile phones (Samuel et al, 2005). In Uganda, FDIs increased to US$2.3 billion in 2007 from below US$600 million in 1997 (UIA Annual Report, 2007). It is however not clear whether this increase in FDI is positively correlated with the increase in mobile telephones in Uganda from below 100,000 in 1997 to 4.5 million in December 2007 (Masambu, 2007).
Literature further indicates that mobile phones give both producers and consumers much better pricing information (perfect knowledge) and thus help create fairer and more efficient markets. Jensen (2007) explains that mobile phones have tremendously augmented the economic gains of fishermen in Kerela village in India. Before mobile phones were introduced in Kerela in 1997, fishermen who arrived late to their local market would find it oversupplied and had to dump some or all of their catch for lack of buyers.

Once mobile phones were introduced, the fishermen in Kerela could “check on” other markets along the coast, and take their supply to meet the demand. Over time they reduced waste and smoothed prices. Fishermen’s profits increased by 8 percent and consumer prices dropped by 4 percent. Remote rural farming communities could access price rates in the capital. There is need to document whether this model could have been replicated among farmers in remote rural areas in Uganda.

**Mobile Phones as a Medium of Payment**

In Uganda, mobile phone networks such as MTN, and Celtel (now Zain) have opened the otherwise “impenetrable” remote rural areas through widespread telephony (Akampumuza and Ggoobi, 2008). This has bridged the digital divide between the urban areas and the rural areas. Through the new technological revolution, it takes a speck of a second to effect communication between someone in any part of rural Uganda with someone in any part of Uganda or elsewhere in the world.

Shaw et al., (2007) posit that villagers in Uganda receive remittances from overseas by mobile phone. They also hypothesise that villagers can check their bank accounts by mobile phones through the special arrangements that exist between specific banks and mobile phone network providers. The question, however, is whether these rural villagers have access to banks in the first place. Statistics show that there are only …

However, Sullivan (2007) and Scott et al. (2004) posit that mobile phone subscribers who are on prepaid service use their mobile phones as their bank. That once one loads prepaid airtime into their mobile phone, no matter how small the amount of “airtime” purchased, it becomes their wallet. Money is flying in and out. Consequently, people who never owned a bank account or even got a chance to sit in front of a blackboard are informally introduced to a culture of credit and debit by the mobile phone.

**Local Innovations in Use of the Mobile Phone**

Akampumuza and Ggoobi (2008) attribute improved living standards among the rural households to an array of innovations in the mobile phone services. One of them is “Beeping” — the practice of swiftly dialing a number and hanging up before the person on the other end of the line receives the call. The goal of the “beeper” is to signal the person the other end of the line that the ‘beeper’ wants to “chat” but lacks airtime and therefore “ring back”. According to Akampumuza and Ggoobi (2008) this ultimately helps low income earners to source phone credit as a transfer payment.

Another innovation which benefits the low income earners, such as the rural households in Uganda is the “Me-to-You” service. It refers to the practice of sharing phone credit, whereby the donor, using a specific code provided by the network providers, sends a portion of credit from their mobile phone to a recipient who is on the same network. This is a mode of transfer payment analogous to the bank credit and debit system, exclusively conducted through the financial intermediation of the mobile phone gadgets and network.

According to Akampumuza and Ggoobi (2008), the success of the Me-to-You innovation presents a unique income redistribution model that could help in designing policies to alleviate poverty among the rural poor. It is part of the diverse kinship structure basically rooted in the culture of sharing.
However, an investigation into the economic implication of “beeping” and “sharing” would help to understand the impact of these innovations on household saving and investment and thus on the long term household incomes.

**Downsides of Mobile phones**

Research has identified a number of downsides associated with mobile phone, both in terms of usage and costs. Scott et al (2004) and Akampumuza and Ggoobi (2008) posit that mobile phone usage poses additive effect, where people in Africa were found to be making more “social” phone calls — to “chat” and “keep in touch” — as opposed to making “business” calls.

The use of cell phones for “chatting” and “keeping in touch” with friends and relatives depicts the massive social spending habit on mobile phones and thus the negative externalities associated with their usage. This is a development policy challenge on how to deal with Uganda’s diverse kinship structures/extended families.

But does this mean that mobile telephony in Uganda is all about socialising? Would an average Ugandan’s “life get better” — as goes the Zain slogan — by simply getting connected to friends and relatives, majority of whom live on one dollar per day? Associated with massive spending by Ugandans on social calls, the Ugandan Parliament complained that post-privatisation communication mobile phone companies were siphoning huge chunks of money out of the country (Parliament, 2001).

Diga (2007) found that rural households substitute critical family expenses like food with mobile phone services. Households reduce the portion spent on food purchases and use the savings for airtime purchase, while others would substitute “expensive” food-stuffs usually critical protein sources such as meat and fish with cheaper ones such as ground-nuts to save for mobile phone airtime. Some reported to have sold off their assets such as land to liquidate and pay for a mobile phone.

5 Methodology

**Data Source**

The study was carried out using the Uganda National Household Survey (UNHS) 2005/06 dataset. The data was collected by the Uganda Bureau of Statistics (Uganda National Statistical Office) on behalf of the Government of Uganda. The UNHS 2005/06 covered all districts in Uganda. Five modules were administered including Agriculture (core module), socioeconomic, community, price, crop cards as well as qualitative modules.

A two stage sampling design was used to draw 7 400 households for interview. At the first stage, Enumeration Areas (EAs) were drawn with probability proportional to size and at the second stage; households which are the ultimate sampling units were drawn using simple random sampling.

The sample of EAs for the UNHS 2005/06 was selected using the Uganda Population and Housing Census Frame for 2002. Initially, a total of 600 Enumeration Areas (EAs) were selected. These EAs were allocated to each region on the basis of the population size of the region. However, in Northern region, the number of Enumeration areas drawn was doubled. The Extra EAs were to be held in reserve to allow for EA attrition due to insecurity.

**Data Analysis**

Data analysis followed two stages; Univariate and Multivariate levels analysis. At Univariate level, frequency and percentage tables were used to describe characteristics of the respondents. At multivariate level, the researcher investigated the relationship between independent and dependent variables. Multiple Regression analysis technique was used to perform the task. Beta coefficients were used to determine the effect of each explanatory variable on the dependent variable while holding other factors constant.
Independent variables included; wealth, household size, education, economic activity, male household head, age of the household head whereas the dependent variables were mobile phone ownership and land ownership. Due to the complexities of the dataset owing to the unavailability of the income variable, land ownership was chosen to work as a proxy variable to facilitate investigation of the effect of mobile phones on rural households. The models below were constructed to operationalise the feasibility of the analytical technique.

**Household Demand Regression**

\[
\text{Mobile ownership} = \alpha + \beta_1 \text{wealth} + \beta_2 \text{landline} + \beta_3 \text{education} + \beta_4 \text{malehousehold} + \beta_5 \text{ageofhhhead} + \epsilon
\]

**Household Productivity Regression:**

\[
\text{Land owned} = \alpha + \beta_1 \text{wealth} + \beta_2 \text{householdsize} + \beta_3 \text{malehhhead} + \beta_4 \text{agehhhead} + \beta_5 \text{education} + \epsilon
\]

Each unit in the dataset has a residual error ‘\(\epsilon\)’ from the first regression. The residual is equal to the difference between a household’s actual and predicted mobile phone ownership outcome, given its characteristics. Because it is a binary variable, the Household Demand Regression is run as a Probit function. By saving its residual as a variable and inputting it into the second regression, an estimator for the impact of mobile phone ownership on household productivity is developed. By running the second regression using Ordinary Least Squares (OLS), the residual productive component of mobile phone ownership is accounted for.

6 Presentation and Interpretation of Study Findings

**Household Characteristics**

Table 1: Age of household head in years

<table>
<thead>
<tr>
<th>Age group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 – 24</td>
<td>595</td>
<td>8.0</td>
</tr>
<tr>
<td>25 – 29</td>
<td>595</td>
<td>8.0</td>
</tr>
<tr>
<td>30 – 34</td>
<td>1454</td>
<td>19.6</td>
</tr>
<tr>
<td>35 – 39</td>
<td>860</td>
<td>11.6</td>
</tr>
<tr>
<td>40 – 44</td>
<td>1256</td>
<td>17.0</td>
</tr>
<tr>
<td>45 – 49</td>
<td>1058</td>
<td>14.3</td>
</tr>
<tr>
<td>50 – 54</td>
<td>560</td>
<td>7.6</td>
</tr>
<tr>
<td>55+</td>
<td>1022</td>
<td>13.8</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 4.1 shows the age of the heads of households that UBOS interviewed in the UNHS 2005/06. Majority of the household heads (19.6%) were aged 30-34 years, followed by 17 percent aged 40-44, 14.3 percent aged 45-49 and least represented age group was 50-54 with nearly 8 percent of the household heads. The statistics are a testament to Uganda population structure where almost 70 percent of the country’s population is aged below 30 years, the age bracket that one would expect to be more familiar with and receptive of new technologies like mobile phones.
Table 2: The Type of Agricultural Activities Carried out on Land

<table>
<thead>
<tr>
<th>Farming activity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle rearing</td>
<td>1322</td>
<td>17.9</td>
</tr>
<tr>
<td>Horticultural crop growing</td>
<td>198</td>
<td>2.7</td>
</tr>
<tr>
<td>Food stuff production</td>
<td>4269</td>
<td>57.7</td>
</tr>
<tr>
<td>Apiary</td>
<td>66</td>
<td>0.9</td>
</tr>
<tr>
<td>Poultry</td>
<td>1413</td>
<td>19.1</td>
</tr>
<tr>
<td>Piggery</td>
<td>132</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 2 shows that when asked by UBOS (2006) to state the agricultural/farming activities the household engaged in, majority (57%) practiced food stuff production, while 17.9 percent were cattle keepers, 19.1 percent practiced poultry, and 2.5 percent did horticultural crop growing. Only 1.7 percent of households did piggery. This is consistent with UBOS (2006) statistics that 73 percent of the Uganda’s population depends on agriculture for livelihood, and particularly for rural areas agriculture employs nearly 90 percent of the labour force. This statistics would be of significance in analysing the impact of mobile phones on household agricultural productivity in rural areas, especially given the fact that majority of households are still engaged in production of food certainly for own consumption. It would be interesting to investigate whether mobile phones have any relevance on such subsistence agrarian households.

Table 3: Distribution of Households by Employment Status

<table>
<thead>
<tr>
<th>Employment type</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenter</td>
<td>198</td>
<td>2.7</td>
</tr>
<tr>
<td>Repair and maintenance</td>
<td>397</td>
<td>5.4</td>
</tr>
<tr>
<td>Trading</td>
<td>1058</td>
<td>14.3</td>
</tr>
<tr>
<td>Peasant farming</td>
<td>4720</td>
<td>63.8</td>
</tr>
<tr>
<td>Paid employment</td>
<td>1027</td>
<td>13.9</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

While indicating the type of employment in which households are engaged in, evidence in Table 3 above shows that UBOS (2006) found a big majority of households (63.8%) as peasant farmers, while about 14 percent were under paid employment. Only 14.3 percent were trading while only 5.4 percent and 2.7 were respectively doing repair and maintenance and carpentry.

The above statistics clearly shows that a big majority of Ugandan households remains peasant farmers which would reduce the impact of new technologies such as mobile phones on their productivity and incomes. This is consistent with Scott et al (2004) findings that indicate that peasants make more “social” phone calls—to “chat” and “keep in touch”—as opposed to making “business” calls which would generate more income.
Table 4: Level of Education Attained by Household’s Head

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No education at all</td>
<td>1400</td>
<td>18.9</td>
</tr>
<tr>
<td>Primary level</td>
<td>3010</td>
<td>40.7</td>
</tr>
<tr>
<td>Secondary level</td>
<td>2200</td>
<td>29.7</td>
</tr>
<tr>
<td>College or university</td>
<td>790</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 4 reveals the distribution of respondents by their education level in rural areas. UBOS (2006) found that majority (40.7%) were primary school graduates, 29.7 percent had successfully completed junior high school level (secondary education) whereas only 10.7 percent managed to transcend all the existence obstacles to graduates with a college or University degree. The statistics illuminate the positive impact of Universal Primary Education Programme which resulted into unprecedented number of primary school graduates. If this is to be generalised, Universal Secondary Education is likely to have a tremendous increase in the number of secondary school graduates which will ultimately improve literacy rates in the country. Literacy is important for increased penetration of mobile phone services in Uganda since educated people are more likely to adopt new technology such as mobile telephony and be able to operate it.

Table 5: Number of Dependents of Households

<table>
<thead>
<tr>
<th>Number of Dependents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>2830</td>
<td>38.2</td>
</tr>
<tr>
<td>5-9</td>
<td>4050</td>
<td>54.7</td>
</tr>
<tr>
<td>10-14</td>
<td>520</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 5 shows that while the households were stating the number of dependants they had, UBOS (2006) found that majority (54.7%) had between 5-9 dependants which is a considerable proportion of households. About 38 percent of households had 0-4 dependants while 5.8 percent had between 10-14 dependants. This is not surprising given that the country is teetering at the brink of the population expulsion owing to her high fertility rates (about 7 children per woman) coupled with declining mortality rates. The dependence burden is also partly explained by the HIV/AIDS scourge which has exerted a lot of strain on the extended family, a safety net for orphans and widows in the country.

The composition of a typical Ugandan household is a manifestation of the dominance of mobile phone usage in the country for “chatting” and “keeping in touch” with friends and relatives which according to Akampumuzza and Ggoobi (2008) depicts a massive social spending habit on mobile phones and thus the negative externalities associated with their usage. They argue that this presents a development policy challenge on how to deal with Uganda’s diverse kinship structures/extended families in order to make mobile phones more relevant to the poor.
Table 5: Size of Land Owned by the Household

<table>
<thead>
<tr>
<th>Land size in acres</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 acres</td>
<td>5494</td>
<td>74.2</td>
</tr>
<tr>
<td>5-9 acres</td>
<td>1590</td>
<td>21.5</td>
</tr>
<tr>
<td>10-14 acres</td>
<td>189</td>
<td>2.6</td>
</tr>
<tr>
<td>Above 15 acres</td>
<td>127</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

While respondents were indicating the size of the land they owned, majority (74.2%) of the households reported to own between 0–4 acres of land, 21.5 percent owned between 5-9 acres and 2.5 percent owned between 10-14 acres whereas only 1.6 percent owned more than 15 acres. This implied that the households had the capacity and the resources like land which they could use to produce in order for them to obtain incomes and earn a living but it was only the size of land owned that varied. Land was a key factor in the production process which could not be undermined but was a strong factor to aid the smooth integration of other factors of production. By the fact that majority of the households practiced agricultural activities, having land was a must to determining the income earned by households. But also the size of the land mattered.

As indicated in our regression models analysed in section 4.2 below, land ownership was a key factor in predicting the impact of mobile phone penetration to household productivity levels in rural Uganda. Land was used as a proxy variable for one key reason -- it is the major productive asset for Ugandan households whose ownership would determine the productivity and thus income level of a typical household. Certainly households with small pieces of land, and in this case the majority, would be unable to carry out activities such as agricultural activities at a commercialised level and would resort to subsistence farming. This would impose a constraint on both acquisition and commercial usage of mobile phones by such households.

Table 6: Type of House Owned

<table>
<thead>
<tr>
<th>House type</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary</td>
<td>924</td>
<td>12.5</td>
</tr>
<tr>
<td>Semi permanent</td>
<td>3975</td>
<td>53.7</td>
</tr>
<tr>
<td>Permanent</td>
<td>2501</td>
<td>33.8</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 6 shows that UBOS (2006) found that majority (53.7%) of households had semi permanent houses, while 33.8 percent had permanent structures and about 12.5 percent owned temporary houses. This literally implies that a significant number of households still lived in poor housing conditions and were not able to construct and build permanent structures. This could be used to reflect the ability of households to purchase assets such as mobile phones and mobile phone services and be able to utilise them productively. The fact that a significant majority of households still lived in semi permanent and temporary houses casts doubt on their ability to adopt and effectively use mobile phones. This was indeed corroborated by the statistics in Table 7 below which summarises mobile phone ownership in Uganda.
Table 7: Mobile Phone Ownership

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1406</td>
<td>19</td>
</tr>
<tr>
<td>No</td>
<td>5994</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>7400</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: UBOS 2006.

Table 7 shows that majority of the respondents (81%) were found not to own a mobile phone as opposed to a few (19%) of the households that owned a mobile phones. However as many researchers had established, in many small villages across Uganda shared phone services (village phones or pay phones) were commonly used and where they were not convenient or available, personally owned mobile phones became de facto shared phones. Mobile phone owners described how they would let friends and neighbours make and receive calls on their phones. Some received an informal commission for providing this service (Burrell, 2008; Diga, 2008; Hisali, 2007; Sinha, 2005; and Scott et al, 2004).

Regression Analysis and Model Prediction

Household Demand for Mobile Phone Ownership and Household Productivity Resulting from Mobile Phone Ownership

Despite slow penetration of mobile phones in rural areas of Uganda, their ownership in some places has had a fundamental impact on rural households particularly their ability to connect rural areas to the wide and most active urban centres. Therefore, the researcher postulated that in order to understand the impact of mobile phones in rural areas, it would be quite imperative to investigate the determining factors that influence acquisition and ownership of mobile phones especially in rural areas. Using the UNHS 2005/06 data, a few critical and immediate factors were identified and a regression was run to provide insight on the magnitude of the effect of each factor on mobile phone ownership. The results of the regression are displayed in Table 7 below.

Table 7: Determinants of Household Demand for Mobile Phone Ownership

<table>
<thead>
<tr>
<th>Mobile Ownership</th>
<th>Coef</th>
<th>Std. Error</th>
<th>t-stat</th>
<th>S.D. x Coef.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth</td>
<td>0.6247</td>
<td>0.0104</td>
<td>59.86</td>
<td>0.8984</td>
</tr>
<tr>
<td>Landline</td>
<td>-0.3307</td>
<td>0.0338</td>
<td>-9.8</td>
<td>-0.1151</td>
</tr>
<tr>
<td>Education</td>
<td>0.0193</td>
<td>0.0024</td>
<td>8.10</td>
<td>0.0389</td>
</tr>
<tr>
<td>Male Household Head</td>
<td>0.1587</td>
<td>0.0199</td>
<td>7.97</td>
<td>0.0794</td>
</tr>
<tr>
<td>Age of household head</td>
<td>-0.0023</td>
<td>0.0006</td>
<td>-3.53</td>
<td>-0.0362</td>
</tr>
<tr>
<td>Time to water</td>
<td>0.0002</td>
<td>0.0003</td>
<td>0.52</td>
<td>0.0053</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.9145</td>
<td>0.0569</td>
<td>-33.65</td>
<td>-</td>
</tr>
</tbody>
</table>

Number of obs = 7,400; Wald chi2(5) = 2219; Prob > chi2 0.000*** Pseudo
R-Squared = 0.232

Table 7 represents a model for predicting household demand for mobile phone ownership. From the table it is clear that the driving factor in mobile ownership is wealth, with a movement of one standard deviation up the wealth index making a household nearly 90 percent more likely to
own a mobile phone. This is reasonable, as mobile phones are relatively expensive and wealthier households are more likely to afford them.

One of the widely held tenets about mobile phones in developing countries such as Uganda is that they tend to promptly substitute fixed lines (see for example Waverman et al, 2005 and Shirley et al, 2002). We find that, when included in the regression, possession of landline is significantly associated with a lower level of mobile phone ownership. Putting rather plainly, if a household has a landline it is less likely to have a mobile phone.

Education has a slight statistically significant positive effect on mobile ownership, probably because more educated people are more aware of mobile technology and how to operate it. The t-statistic on the estimated coefficient on mobile phone ownership is 8.10. The age of household head is negatively and significantly correlated with mobile ownership. These results are perhaps not surprising in view of the common presumption that younger generations would be more familiar with and accept new technologies like mobile phones than older households, even though it may be the households with older heads that are better able to afford them.

Time to water variable which was included to account for remoteness which could impact on mobile phone ownership and coverage, was found to have a statistically insignificant influence on household demand for mobile phone ownership, implying that mobile phone ownership has nothing to do with location of household—whether remotely located or not a household would or would not own a mobile phone.

To investigate the impact of mobile phone penetration on household income, a household productivity regression was run where land ownership was chosen to work as a proxy variable. Land was chosen over other variables partly due to the complexities of the UNHS 2005/06 dataset that clearly catalog land as a key productive asset especially in rural areas where activities such as agricultural activities (including crop farming and cattle rearing) are dominant but not as clearly cataloged as land is. The results of the regression are summarised in Table 8 below.

Table 8: Model for Predicting Household Productivity Owing to Mobile Phone Ownership

<table>
<thead>
<tr>
<th>Land Ownership</th>
<th>Coef.</th>
<th>Std. Error</th>
<th>t-stat</th>
<th>S.D. x Coef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth</td>
<td>0.6421</td>
<td>0.0703</td>
<td>9.13</td>
<td>0.9234</td>
</tr>
<tr>
<td>Household size</td>
<td>0.4218</td>
<td>0.0228</td>
<td>18.53</td>
<td>1.6844</td>
</tr>
<tr>
<td>Education</td>
<td>0.0516</td>
<td>0.0201</td>
<td>2.58</td>
<td>1.0011</td>
</tr>
<tr>
<td>Male Household Head</td>
<td>2.0022</td>
<td>0.1571</td>
<td>12.74</td>
<td>1.0246</td>
</tr>
<tr>
<td>Age of household head</td>
<td>0.0645</td>
<td>0.0050</td>
<td>12.90</td>
<td>0.1309</td>
</tr>
<tr>
<td>Residual</td>
<td>1.3771</td>
<td>0.1678</td>
<td>8.21</td>
<td>0.5547</td>
</tr>
<tr>
<td>Constant</td>
<td>-10.0458</td>
<td>0.4381</td>
<td>-22.93</td>
<td>-</td>
</tr>
</tbody>
</table>

Number of obs = 7,400; R-Squared = 0.1124

The Household Productivity Regression was run with the residual and a number of other explanatory variables, as well as in a simpler model containing just the wealth, household size, education, residual and other variables. The key result is the statistically significant and positive coefficient for the residual variable with a t-statistic on the estimated coefficient of 8.21. This suggests that some factor of the error term of mobile phone demand is affecting the quantity of land owned by a household, the proxy used for productivity and thus a representation of household income. If this random factor is indeed related to the productive properties of mobile phone, then it could be inferred that mobile phone ownership is leading to more productive households, which in turn is leading to greater investment in land as a productive asset and a store of wealth. While we may not rule out an omitted variable bias causing something else correlated with mobile phone and land
ownership to affect the outcomes, the findings are unquestionably encouraging for the hypothesis that mobile phones do add significant value to rural household productivity and income.

Wealth is also positively and significantly correlated with the size of land owned, and a movement of one standard deviation up the wealth index results in the possession of nearly one more acre of land per household. This is also reasonable and logical given the financial expense incurred to purchase land. At the top end of the wealth index, an opposite effect may be expected, as the very wealthy might tend to diversify away from land to more modern assets such as house, furniture, cars, and financial assets. This necessarily can be interpreted that ownership of a mobile phone would increase the household's wealth and this would increase the productivity level of the household through acquisition of more productive assets, in this case land. However, because the wealthy make up such a low proportion of this survey, the effect probably goes unseen.

Household size performs as expected, with an increase in the number of people in a household by one standard deviation causing the quantity of land owned to increase by fewer than two. Agriculture in rural Uganda is very labour intensive, due to low levels of capital investment and the marginality of the land, and so it would be easier for larger households to own larger pieces of land where they carry out activities such as crop farming and cattle rearing from which they earn income. Larger households, therefore, would hold larger pieces of land and thus are more likely to own mobile phones and accumulate more wealth.

Male household head is also positively and significantly correlated with land ownership with a coefficient of 2.002. This implies that households with male heads are likely to own over two more acres of land than female-headed households. This may as a result of traditional dominance by males in property ownership in Uganda which they acquire through means such as inheritance, while females are barred by some cultural beliefs from inheriting property such as land. Therefore, male headed households are more likely to own mobile phones and thus more likely to be productive.

Having an older household head also increases the size of land owned by over 6 percent, which may be due to the fact that older generations tend to stick to traditional forms of agriculture, as well as having higher levels of built-up capital, some of which will be invested in land. Education is positively correlated with the size of land owned, and while one might expect this effect to be more significant, its effect may be tied into other variables like wealth. Furthermore, the UNHS (2006) dataset only takes into account formal education, and not necessarily the acquisition of informal knowledge that is useful in farming and more so in rural areas.

Since land ownership was used as a proxy for household productivity and it has strong positive correlation with the residual factor of mobile phone ownership. Assuming that the proxy does act as a productive asset, and that this residual factor is not correlated with any factor affecting output other than mobile phone ownership, then it would appear that mobile phones do indeed have positive impacts on the productivity of their owners.

7 Summary of Findings, Conclusions and Recommendations

Summary

Majority of the household heads (19.6%) that made up of the UBOS (2006) sample were aged 30-34 years, followed by 40-44 (17%) age group, 14.3 percent were aged 45-49 and the least represented age group was 50-54 with nearly 8 percent of the household heads. The statistics are a testament to Uganda’s population structure where almost 70 percent of the country’s population is aged below 30 years, and this has been found to have a significant bearing on mobile phone penetration in the country and its effect on household incomes.

As far as occupation is concerned, majority of household members (57%) engaged in food stuff production, 17.9 percent were cattle keepers, 19.1 percent practiced poultry, while 2.5 percent did horticultural crop growing and 1.7 percent did piggery. The study also found that majority of the households (63.8%) were peasants; almost 14 percent were under paid-employment, 14.3
percent were trading while only 5.4 percent were doing repair and maintenance. These statistics only confirm the relevance of our proxy variable, land, used in the regressions to determine the productivity levels of households. Certainly land is instrumental in all the major activities delineated above.

In terms of academic qualifications, majority households (40.7%) were primary school graduates, 29.7 percent had successfully completed junior high school level (secondary education) whereas only 10.7 percent managed to transcend all the existence obstacles to graduate with a college or University degree. Education is significantly correlated with both mobile phone and land ownership, the two dependent variables in our household demand and productivity regressions. Majority of the households (54.7%) had between 5-9 dependants; a considerable proportion of households (38%) had 0 – 4 dependants while only 5.8 percent of households had between 10-14 dependants.

On land ownership, UBOS (2006) established that majority (74.2%) of the households owned between 0 and 4 acres of land, 21.5 percent owned between 5-9 acres and 2.5 percent owned between 10-14 acres whereas only 1.6 percent owned more than 15 acres. In terms of the type of housing conditions about 53.7 percent had semi permanent houses, 33.8 percent had permanent structures and 11.6 percent owned temporary houses.

As far as investigation of the determinants of households demand for mobile phone ownership is concerned, the results revealed that the driving factor was wealth and with a movement of one standard deviation up the wealth index, a household was nearly 90 percent more likely to own a mobile phone. This is reasonable, as mobile phones are expensive and wealthier households are more likely to consume them. If a household owned a land line, however, it was less likely to have a mobile phone, in tandem with Waverman et al (2005) findings that claim that mobile phones are substitutes for fixed lines in poor countries, although they work as complements of land lines in rich countries.

In addition, education has a slightly positive effect on mobile ownership, probably because more educated people are more aware of mobile technology, how to operate the phone, and its potential benefits. The age of household head is negatively correlated with mobile ownership, as one would expect younger generations to be more familiar with new technologies like mobile phones, even though it may be the households with older heads that are better able to afford them. This, therefore, posits ambiguous implications of the impact of mobile phones on incomes rural areas since older households that own most of the product assets in rural areas are less likely to purchase mobile phones while younger generations that are less wealthy buy mobile phones possibly as consumer goods used to “chat” and “keep in touch”, in tandem with Scott et al (2004) findings.

An attempt to examine the impact of mobile phone ownership on household productivity and thus income revealed that wealth is positively correlated with the quantity of land owned (a proxy for household productivity), and a movement of one standard deviation up the wealth index results in the ownership of nearly one more acre of land per household. This was found logical given the financial expense incurred to purchase land. At the top end of the wealth index, an opposite effect may be expected, as the very wealthy might tend to diversify away from land to more modern assets. However, because the wealthy make up such a low proportion of this survey, the effect probably goes unseen.

Household size performs as expected, with an increase in the number of people in a household by one standard deviation causing the size of land owned to increase by just under two. Households with male heads are likely to own more land than female-headed households. Having an older household head also increases the size of land owned, which may be due to the fact that older generations tend to stick to traditional forms of agriculture, as well as having higher levels of built up capital, some of which will be invested in land. Education is positively correlated with the size of land owned, and while one might expect this effect to be more significant, its effect may be tied into other variables like wealth.
8 Conclusions

The study concludes that with land proxy acting as a productive asset, and that if this residual factor is not correlated with any factor affecting output other than mobile phone ownership, then it would appear that mobile phones do have a positive impact on the productivity of their owners and thus their incomes. In simpler terms, increased usage of mobile phone would increase household productivity and thus income regardless of the household’s other attributes.

However, since there is a possibility of an omitted variable bias that is not accounted for in the models on both household demand and productivity regression, the residual term would have been prevented from representing the productive effects of a mobile phone accurately. The use of household capital, labour and income statistics instead of land ownership in future studies may help reduce such issues.

Regardless of the foregoing weakness of the study, its findings are still significant given the strong coefficients produced across the variables.

9 Recommendations

Findings of this study imply that the telecommunication sector should be promoted especially by working to reduce the cost of mobile telephony (both hardware cost of handsets and call tariffs) so that more Ugandans especially in rural areas can access mobile phone services at affordable cost. This will ultimately improve household productivity and income. This calls for government involvement in helping extend telecommunication services to rural areas by investing in overhead capital which private telecommunication providers may not be willing to invest in especially in rural areas where household incomes are still very low, implying low effective demand for mobile phone services.

In order to make mobile phones more relevant to rural households and make them more productive, policy makers should design strategies that would discourage mobile phone users from using mobile phones for “chatting” and “keeping in touch” with friends and relatives, especially owing to the diverse kinship structures/extended families in Uganda more so in rural areas. For example, policy makers may design policies that would encourage telecommunication companies to modify their pricing methodologies from the prevailing system that subsidizes social calls (during “super economy” time) to one that would implicitly tax social calls and subsidize business calls (during prime or business time).

The study shows that majority rural households in Uganda (57.8%) practiced subsistence farming. There is, therefore, need to encourage rural household to practice commercial farming if they are to benefit from the upsurge of mobile phones. This calls for implementation of policies that would facilitate structural change, such as rural electrification, infrastructure development and family planning to reduce household size. Additionally, since the study found out that majority of the respondents attained low levels of education (primary level), there is need to sensitize and encourage people to go to school in order to be able to benefit from new technologies such as mobile phones.

Microcredit and microfinance programmes should be promoted in the country and the Government ought to take a leading role in this. This will help the people have access to credit facilities with which they can invest to acquire productive assets such as land, mobile phones, education and many others. The issue of land ownership should also be dealt with seriously since land ownership is positively correlated with income growth (wealth). This calls for land reform policy to make as many rural households as possible access land as a major production asset.

In all these policy options government involvement in investment is encouraged. However, although encouraged to intervene, government should play an indirect role by promoting market-driven interventions rather than attempting to “pick winners” in sectors such as telecommunication.
10 References


Hisali E. (2007), “Review of sector taxation policies and determining the elasticity of penetration and price of the various telecommunication services in Uganda.” Uganda Communications Commission


Sinha C. (2005), “Effect of Mobile Telephony on Empowering Rural Communities in Developing Countries.” International Research Foundation for Development (IRFD)


Getting the Right Time to Do What Is Right

Amuhaya, Geoffrey – (Ministry of Public Works, Kenya)

1 Abstract

One thing that is shared equally in an organisation and amongst organisations is time. In a changing world where leaders are supposed to meet their obligations, Noble states that, “The discovery of the causes for the improved operations often leads the way to permanent cost reductions.” Therefore, it is important for management to time a process and match the actions of individuals (employees) to it. First, they have to get a period of time that is reasonable and realistic. Secondly, individuals have the same time at their disposal hence, it forms a basis to analyse a process with the aim of finding areas for change in the input or output or both to a process leading to a satisfactory outcome. In laying emphasis on the outcome, management will satisfy the customer using minimal resources. This procedure is concerned with a process and management may find it objectionable since they (1) provide judgments that are subjective and (2) delay in making decisions regarding allocation of resources to enable employees meet their objectives. It is expected that management will accept change in the process they have created and used time and time so as not to blame employees.

Key words: Change, Management, Outcome, Process, Time

2 Introduction

Management is (1) doing through others, (2) decision making, and (3) allocating scarce resources, so that (4) objectives are reached (Tate Jr., 1984). Therefore, to satisfy customers using their employees, it is important for management to know that judging and dealing with individuals (employees) in a practical way according to what is actually possible rather than what they would like to happen is the best way forward. One such area is with respect to time and as stated “In an excellent department, everyone worries about the whole and takes initiative to see that problems are dealt with and objectives met. This does not supersede clear individual responsibilities and accountability, but avoid the passive acceptance of things going wrong because “it’s not my job” (Bradford and Cohen, 1984).”

Time plays an important role in organisations and with departments in an organisation more so individuals as they share its equitability property. To make a difference then individuals play a central role and it calls for management to know that “Management makes the difference from one business to another! To change the world management without changing individuals in management is impossible (Wilson, 1986).” Then to have a change it is possible to look at a business from a process point with the following definition it is “a sequence of operations that takes input (labour, materials, methods, and so on) and turns them into outputs (products, services, and the like) (Bowerman and O’Connell, 2003).”
3 Why do We Need to Look at Time?

An example will assist to answer this; a department that has the responsibility to carry out maintenance actions procures supplies, spares and repair parts to satisfy this need. It is noted that the time taken from initiating procurement to ordering is long as shown in Table 1.

Table 1: Time in Days from Initiating to Ordering

<table>
<thead>
<tr>
<th>Requisition number</th>
<th>Date raised</th>
<th>LPO number</th>
<th>Date processing of LPO starts</th>
<th>Time taken in days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29/09/2010</td>
<td>1</td>
<td>5/10/10</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>30/09/2010</td>
<td>2</td>
<td>8/10/10</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>30/09/2010</td>
<td>3</td>
<td>8/10/10</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>06/10/2010</td>
<td>4</td>
<td>01/12/2010</td>
<td>57</td>
</tr>
<tr>
<td>5</td>
<td>21/10/2010</td>
<td>5</td>
<td>1/12/2010</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>3/11/2010</td>
<td>6</td>
<td>1/12/2010</td>
<td>29</td>
</tr>
<tr>
<td>7</td>
<td>3/11/2010</td>
<td>7</td>
<td>1/12/2010</td>
<td>29</td>
</tr>
<tr>
<td>8</td>
<td>15/11/2010</td>
<td>8</td>
<td>1/12/2010</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>22/11/2010</td>
<td>9</td>
<td>21/12/2010</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>25/11/2010</td>
<td>10</td>
<td>21/12/2010</td>
<td>27</td>
</tr>
<tr>
<td>11</td>
<td>2/12/2010</td>
<td>11</td>
<td>21/12/2010</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>21/12/2010</td>
<td>12</td>
<td>14/01/2011</td>
<td>25</td>
</tr>
</tbody>
</table>

From table 1 the mean time it takes to raise an LPO is \((7+9+9+57+42+29+29+17+30+27+20+25)/12 = 25.08\) days, that is, from the day a request is made to acquire goods or services it takes about 25 days for an order to start being processed.

4 Getting the Right Time

The local purchase order has to have five signatories as it is processed and for ease they have been numbered 1 to 5 shown in Table 2.
Table 2: Dates Each Person Signs an LPO

<table>
<thead>
<tr>
<th>LPO Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14/1/11</td>
<td>14/1/11</td>
<td>14/1/11</td>
<td>18/1/11</td>
<td>18/1/11</td>
</tr>
<tr>
<td>2</td>
<td>1/12/10</td>
<td>7/12/10</td>
<td>7/12/10</td>
<td>10/10/10</td>
<td>10/10/10</td>
</tr>
<tr>
<td>3</td>
<td>10/1/11</td>
<td>11/1/11</td>
<td>11/1/11</td>
<td>18/1/11</td>
<td>18/1/11</td>
</tr>
<tr>
<td>4</td>
<td>10/1/11</td>
<td>10/1/11</td>
<td>10/1/11</td>
<td>12/1/11</td>
<td>12/1/11</td>
</tr>
<tr>
<td>5</td>
<td>21/12/10</td>
<td>3/1/11</td>
<td>4/1/11</td>
<td>7/1/11</td>
<td>7/1/11</td>
</tr>
<tr>
<td>6</td>
<td>21/12/10</td>
<td>3/1/11</td>
<td>4/1/11</td>
<td>7/1/11</td>
<td>7/1/11</td>
</tr>
<tr>
<td>7</td>
<td>21/12/10</td>
<td>3/1/11</td>
<td>4/1/11</td>
<td>7/1/11</td>
<td>7/1/11</td>
</tr>
<tr>
<td>8</td>
<td>17/12/10</td>
<td>-</td>
<td>20/12/10</td>
<td>21/12/10</td>
<td>21/12/10</td>
</tr>
<tr>
<td>9</td>
<td>6/12/10</td>
<td>6/12/10</td>
<td>6/12/10</td>
<td>7/12/10</td>
<td>7/12/10</td>
</tr>
<tr>
<td>10</td>
<td>01/12/10</td>
<td>2/12/10</td>
<td>2/12/10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>01/12/10</td>
<td>2/12/10</td>
<td>2/12/10</td>
<td>07/12/10</td>
<td>07/12/10</td>
</tr>
<tr>
<td>12</td>
<td>01/12/10</td>
<td>2/12/10</td>
<td>2/12/10</td>
<td>07/12/10</td>
<td>07/12/10</td>
</tr>
<tr>
<td>13</td>
<td>26/10/10</td>
<td>26/10/10</td>
<td>27/10/10</td>
<td>29/10/10</td>
<td>29/10/10</td>
</tr>
<tr>
<td>14</td>
<td>8/10/10</td>
<td>11/10/10</td>
<td>11/10/10</td>
<td>12/10/10</td>
<td>12/10/10</td>
</tr>
<tr>
<td>15</td>
<td>8/10/10</td>
<td>11/10/10</td>
<td>11/10/10</td>
<td>12/10/10</td>
<td>12/10/10</td>
</tr>
<tr>
<td>16</td>
<td>5/10/10</td>
<td>6/10/10</td>
<td>6/10/10</td>
<td>7/10/10</td>
<td>7/10/10</td>
</tr>
<tr>
<td>17</td>
<td>15/09/10</td>
<td>15/09/10</td>
<td>16/09/10</td>
<td>17/09/10</td>
<td>17/09/10</td>
</tr>
<tr>
<td>18</td>
<td>1/09/10</td>
<td>1/09/10</td>
<td>1/09/10</td>
<td>2/09/10</td>
<td>2/09/10</td>
</tr>
<tr>
<td>19</td>
<td>16/08/10</td>
<td>17/08/10</td>
<td>17/08/10</td>
<td>18/08/10</td>
<td>18/08/10</td>
</tr>
<tr>
<td>20</td>
<td>5/8/10</td>
<td>-</td>
<td>-</td>
<td>9/08/10</td>
<td>9/08/10</td>
</tr>
<tr>
<td>21</td>
<td>5/08/10</td>
<td>-</td>
<td>-</td>
<td>9/08/10</td>
<td>9/08/10</td>
</tr>
<tr>
<td>22</td>
<td>5/08/10</td>
<td>-</td>
<td>-</td>
<td>9/08/10</td>
<td>9/08/10</td>
</tr>
<tr>
<td>23</td>
<td>29/6/10</td>
<td>30/6/10</td>
<td>30/6/10</td>
<td>2/7/10</td>
<td>2/7/10</td>
</tr>
<tr>
<td>24</td>
<td>24/6/10</td>
<td>-</td>
<td>24/06/10</td>
<td>25/06/10</td>
<td>25/06/10</td>
</tr>
<tr>
<td>25</td>
<td>24/6/10</td>
<td>-</td>
<td>24/06/10</td>
<td>25/06/10</td>
<td>25/06/10</td>
</tr>
<tr>
<td>26</td>
<td>22/6/10</td>
<td>22/6/10</td>
<td>22/06/10</td>
<td>24/06/10</td>
<td>24/06/10</td>
</tr>
<tr>
<td>27</td>
<td>4/5/10</td>
<td>5/5/10</td>
<td>5/5/10</td>
<td>7/5/10</td>
<td>7/5/10</td>
</tr>
<tr>
<td>28</td>
<td>20/04/10</td>
<td>21/04/10</td>
<td>21/04/10</td>
<td>26/04/10</td>
<td>26/04/10</td>
</tr>
<tr>
<td>29</td>
<td>19/04/10</td>
<td>19/04/10</td>
<td>20/04/10</td>
<td>21/04/10</td>
<td>21/04/10</td>
</tr>
<tr>
<td>30</td>
<td>10/1/11</td>
<td>11/1/11</td>
<td>11/1/11</td>
<td>13/1/11</td>
<td>13/1/11</td>
</tr>
</tbody>
</table>

Table 2 shows an over controlling organisation with a department having the responsibility of maintaining equipment in use to provide transport but requires 5 signatures to raise an order for the supply of goods and services to satisfy this need. Looking at this as a process it is possible to monitor by use of a control chart. What has to be noted is that the concerned department none of the employees is part of the five signatories even though a delay in not meeting this need will squarely be blamed on them. Taking the process of signing an LPO as a sub group, its size is 5, (Table 3).
Table 3: Five Signature Stages for an LPO

<table>
<thead>
<tr>
<th>LPO Number</th>
<th>Signatures and time taken in days</th>
<th>X bar</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1 1 1 5 5</td>
<td>2.6</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>1 7 7 10 10 7</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>1 2 4 4 4 2</td>
<td>2.6</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>1 1 3 3 3 1.8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1 14 15 18 18 13.2</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1 14 15 18 18 13.2</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1 14 15 18 18 13.2</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1 1 1 2 2 1.4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1 2 7 7 3.8</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1 2 7 7 3.8</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1 2 4 4 2.4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1 2 3 3 2.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1 2 3 3 2.2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1 2 3 3 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1 1 1 2 2</td>
<td>1.4</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1 4 5 5 3.8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1 4 5 5 3.8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>1 2 4 4 2.6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1 1 3 3 1.8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>1 2 4 4 2.6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>1 2 7 7 3.8</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>1 2 3 3 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>1 2 3 3 2.2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

From Table 3, X bar is the mean (of time in days) and R is the range (highest time minus lowest time in days) in the sub group. From the institute of quality and reliability, a table of constant for control chart factors is given as $A_2 = 0.577$ used to get the chart for averages with $D_3$ not given and $D_4 = 2.114$ used to get charts for ranges. Before the control limits – upper ($UCL_{\bar{X}}$) and lower ($LCL_{\bar{X}}$) limits for both the mean chart and $UCL_R$ and $LCL_R$ range chart is drawn then, first get the mean of the means ($X$ double bar) that is the sum of $X$ bar divided by 23 $(95.4/23 = 4.1)$ and the mean of the ranges ($R$ bar) that is the sum of $R$ divided by 23 $(118/23 = 5.1)$.

Secondly, the upper and lower control limits of range chart are found as follows; for upper control limit ($UCL_R$) is the product of $R$ bar and $D_4$ $(5.1 * 2.114)$ to get 10.8 and for lower control limit ($LCL_R$) is taken as zero since the constant is not given and the result is Figure 1.
It is important to start with Figure 1 to analyse the process since it mostly has only one cause that brings about a change. It reveals that LPO number 5, 6 and 7 are out of control and a keen look at them reveals that they were raised during the Christmas season and it is possible to infer that may be the officers concerned took an early leave thus nobody kept track of progress in raising the LPO. Knowing this and pointing out to individuals is a concern relating to poor performance that is possible to eliminate without requesting or looking for financial resources.

The upper and lower control limits of mean chart are found as follows; for upper control limit (UCL$_X$) it is $X$ double bar plus ($A_2$ times $R$ bar) to get 7 from $(4.1 + (0.577*5.1))$ and for lower control limit (LCL$_X$) it is $X$ double bar minus ($A_2$ times $R$ bar) to get 1 from $(4.1 - (0.577*5.1))$ results in Figure 2.

Figure 2 reveals that LPO number 5, 6 and 7 are out of control same as that in Figure 1. From these two charts it is possible to distinguish two kinds of causes that lead to a process being out of control. Those that require management input (common cause) and those that do not require management input (assignable causes).

It allows for a new set of control limits be calculated and it is found that LPO number 2 is out of control with tires as items procured. A requisition was raised on 21/10/2010 to get the tires from an electrical hardware and spares shop. From the name of the supplier it is possible to infer that there might have been delay to procure the items since the supplier does not look like an authorised tire dealer. This then raises the issue of having pre-qualified suppliers and authorised dealers of some technical items. A lack of coordination between the procurement and transport departments in looking for suppliers can be the cause of the delay (it raises suspicion). “The dilemma for the manager, then, is not whether control needs to be exercised but how to see that it is exercised
without weakening the motivation of those with energy and enthusiasm (Bradford and Cohen, 1984).” These dilemma is done with by use of this control limits, Figure 3.

**Figure 3: A Range Chart that is Under Control**

![Range Chart](image1)

The curve being in between the upper control limit and the lower control limit (see Figure 3) it is now possible to set the limits of how long a variation is allowable in processing an LPO and this has an impact on the operation of the department. Figure 3 is a chart in statistical control since it is within the limits. The maximum number of days to process an LPO a variation of 6.44 days is satisfactory hence you can monitor the process and find areas for improvement without placing blame entirely on employees. This then allows one to draw the mean chart as shown in Figure 4.

**Figure 4: A Mean Chart that is Under Control**

![Mean Chart](image2)

Figure 4 shows a chart that depicts a process in control thus, a description of the process can be given that is allowed for processing an L.P.O as 4.4 days and the earliest time it can take as 1 day. Processing an L.P.O within this time shows a process that is in statistical control but it does not mean that it meets the quality requirements as to service delivery.

The time needed to have an order raised was found to have a range of 6.44 days with a mean of 4.1 days with the process being within the control limits developed. It is important to know that:

1. When a process is influenced only by common cause variation, the process will be in statistical control.
2. When a process is influenced by one or more assignable causes, the process will not be in statistical control (Bowerman and O’Connell, 2003).

Figure 1 and 2 shows the process not being in statistical control due to an assignable cause that can be remedied without management action. That of ensuring that employees are at their place of duty and not taking early leave or failing to report on duty at the required date than later. While Figure 3 and 4 the process is in statistical control and one objective of statistical process control has been met that is “to detect and eliminate assignable causes of process variation.”
5 Doing What Is Right

Reducing common cause variation is usually a management responsibility... For instance, obsolete or poorly maintained equipment, a poorly designed process, and inadequate instructions for workers are examples of common cause variation (Bowerman and O'Connell, 2003).

Given that the mean time and range time for the process of raising an order has been given then management should try and measure performance of the individuals and the entire department based on this time. It is not right for them to blame the transport department entirely if there are many equipment that have failed since from Table 1 and Figures 3 and 4 to get a supply, spare and repair part it takes 30 days from requisition to ordering it from suppliers. Here, the item has not been received yet but just sent the local purchase order to a firm for them to bring the item hence the maintenance action will not be met.

Management should readily accept the introduction of new ideas or methods from employees by creating the attitude or a set of ideas that guides employees or the organisation. As stated by one business leader “As our business grows, it becomes increasingly necessary to delegate responsibility and to encourage men and women to exercise their initiative. This requires considerable tolerance. These men and women, to whom we delegate authority and responsibility, if they are good people, are going to want to do their jobs in their own way. Mistakes will be made. But if a person is essentially right, the mistakes higher education or she makes are not as serious in the long run as the mistakes management will make if it undertakes to tell those in authority exactly how they must do their jobs. Management that is destructively critical when mistakes are made kills initiative. And it is essential that we have many people with initiative if we are to continue to grow (Luecke, 2005).”

6 Conclusion

There is a growing need for management to time processes in their organisation. As shown, a long time is taken between requisitioning and ordering with the ordering activity being an area that clearly shows indecisiveness from management. This calls for change in tackling the period taken by employees in performing their duties so that objectives of the organisation are realised.

Keeping track of operations will have a positive impact throughout the organisation:
1. Improved job performance through timely decisions that results in quick judgments.
2. Existing personnel in an area of expertise will be more effective since management allows for knowledge sharing that leads to cost reductions. Costly wait time is eliminated in allocation of resources to personnel hence, attaining efficiency.
3. Management will have enhanced planning skills and tools.
4. When management provides its employees with realistic and reasonable timings then their leadership and governance will be supported by all.

7 References

Evaluation of the Policy Implications of Bridging the Digital Divide in Kenya using ICT Access-Involvement Interaction Policy Model

Okongo, Kennedy Odiwour and Sakwa M. M. – (Jomo Kenyatta University of Agriculture and Technology, Kenya)

1 Abstract

ICTs are a critical input in contributing to the social and economic development of nations. For any nation to benefit from ICT the nation has to ensure her citizens access and utilise ICT. To achieve this, a plan of action has to be put in place more importantly to help reduce the digital divide within whose critical aim is that ensuring the citizens interacts with these technologies. This process should ensure that the majority of the citizens access and utilise these technologies. How best to go about it for Kenya? The starting point is to design appropriate policies which will constitute the plan of action. Borrowing from the South Korean ICT policy model of access-involvement-interaction the paper evaluates the policy implication that can be deduced when this model is applied in the Kenyan context as far as bridging the digital divide is concerned. The research design was a survey and sampled 210 respondents in Nairobi consisting of three groups namely: civil servants, university students and housewives. The results indicated that income only cannot fully explain gaps in Internet use within groups but other factors namely gender and educational level are equally important. The results further indicated that policy emphasis ought to focus on skills access and usage access in addition to material (infrastructure) access which has been the focus of many ICT related policies. Recommendations coming out of the study point to the need to refocus ICT policies towards positioning Kenya globally as a competitive information economy suggests by rethinking and reworking the ICT policies related to universal access and service.

2 Introduction

This paper explores a model which can inform the policy process in efforts to have ordinary citizenry equally access and benefit from ICTs in Kenya. It has its starting point in South Korea’s endeavour to turn into an information society for all. In Kenya, a study of available statistics concerning access to the Internet could make one think that this vision may soon be realised. It is however noted that naturally, access to technical infrastructure is a fundamental condition; unfortunately, it is not the only one. Hence gaps, commonly referred to as digital divide, exist and needs to be bridged to realise an information society.

3 Background

ICTs particularly the Internet can be considered as increasingly becoming the tools that are at the core of national competitiveness strategies around the world. They are reputed as critical enablers for growth and development in all the spheres of life of any nation. This can be seen in Kenya with
the mobile money transfers among other ICT and Internet based activities. Though it is possible to contest the contributions of ICT and related technologies to growth and development of nations however its far-reaching impacts in society are uncontroversial (Calhoun, 1998). Due to this many emerging economies have initiated projects aimed at increasing universal access to ICTs; one such nation is Kenya. Recently Kenya drafted a national ICT policy (2006) which has been boosted by the landing of the undersea fibre optic cable. Kenya like many developing nations faces the challenge of converting this into a catalyst for sustainable growth and development. However statistics on the status of ICT and related technologies for developing countries as summarised by International Telecommunications Union are grim (ITU, 2010). These are:

1. Though 60 percent of populations in developing countries live in rural areas, more than 80 percent of mobile phones are found in urban regions.
2. That 84 percent of mobile cellular subscribers, 91 percent of facsimile machines and 77 percent of internet-host computers are found in developed countries.
3. One-quarter of International Telecommunications Union, ITU member countries have less than one Internet-host connection for every 100 people.

This grim gap as illustrated by ITU (2006) is what is termed as digital divide. This is supported by Table 2-1 below which provides a status summary of some facts on ICT and related technologies for Kenya.

### Table 1: Some Facts on Telecommunications in Kenya

<table>
<thead>
<tr>
<th>ICT Property</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers per 100 inhabitants (2005)</td>
<td>1.44</td>
</tr>
<tr>
<td>Internet users per 100 inhabitants</td>
<td>8.71</td>
</tr>
<tr>
<td>Broadband Internet subscribers per 100 inhabitants (2007)</td>
<td>0.05</td>
</tr>
<tr>
<td>International Internet bandwidth (Mbps)</td>
<td>1421</td>
</tr>
<tr>
<td>Cybercafés (2007)</td>
<td>1000</td>
</tr>
<tr>
<td>Mobile cellular subscribers per 100 inhabitants</td>
<td>42.11</td>
</tr>
<tr>
<td>Percentage of population covered by mobile signal (2007)</td>
<td>77.0</td>
</tr>
</tbody>
</table>


On the basis of the above summaries on the status of ICT and related technologies it can be argued there is a clear gap that needs to be bridged. This is particularly urgent when one notes that, for developing countries especially, investment in ICT and related technologies can help accelerate their development. This was noted by Kofi Annan (2003) who rightly observes that: “ICTs can give developing countries the chance to leapfrog some of the long and painful stages of development that other countries have had to go through”. This makes it imperative then that the digital divide has to be bridged.

Bridging the digital divide is a complex activity as noted by the fact that at least three approaches or models have emerged. The first is using technology to meet the goals of a community provided at little or no cost to users. The second model is providing accessible facilities that offer computer access and technical support to people who cannot afford and the third model is providing material that is relevant to a target audience to motivate the use of the technology (Beamish, 1999). South Korea and India are living testimonies. The latter has seen thousands of jobs created through business process outsourcing, while the former, which in 1963 was at par with Kenya in terms of
opportunities in the economy (Eliza, 2005a) has leveraged on ICTs leaping stages ahead of Kenya in the context of the Access-Involvement-Interaction (AII model) perspective (Lee, 2003). The narrowing of the digital divide in Korea during the 1990s indicated that the material, mental and motivational access to digital technologies was substantially and simultaneously encouraged. The AII South Korean model offers an opportunity for integrating several dimensions in the context of understanding and bridging digital divide. This paper therefore espouses these dimensions of the digital divide in the Kenyan context so as to contribute to a policy direction for Kenya in her efforts to bridging the digital divide. Tusubira (2002) notes that:

The mechanics of bridge construction require that before constructing a bridge, one must fully analyse the nature of the soil, the width of the gap to be bridged, and then come up with a suitable design for the bridge.

From the digital divide and development point of view, indeed, it is sometimes worse to construct rather than destroy – and therefore, a framework which integrates the dimensions critical to the users of ICT and related needs to be formulated.

According to CCK (2009) the Internet subscribers in Kenya on all modes of connectivity grew from 3 409 896 in March 2009 to 3 648 406 in June 2009. This trend ranked Kenya the sixth in the top Internet users per capita in Africa. (ITU: Kenya Internet Usage Statistics, 2010). However, many authors note that there exists uneven distribution of ICTs throughout the nation (Zeleza, 2005); isolated rural zones being the worst hit. As Resnick argued, *access is not enough* (Resnick and Rusk, 1996). Partially synthesizing, yet expanding on the perspectives of Resnick, the argument here is that the gap between the *haves* and the *have nots* will only be closed, when every Kenyan meets some criteria: - First in the criteria is *access*; then second is *involvement* or the technological fluency; not only knowing basic *modus operandi* but ability to make things of *significance* with them (Resnick and Rusk, 1996). Finally, *interaction* where no more is the citizens’ role simply to consume, but the consumer should also become a creator (Smith *et al*, 1999). These viewpoints advanced naturally lead to the South Korean Access-Involvement-Interaction (AII model) perspective mentioned above.

Apart from the cost and access challenges, the internet in Kenya has had very little local content implying limited interaction of Kenyans as creators. This is summarised in Table 2-2 below where local web sites were less visited in comparison to sites from the developed nations.

### Table 2: Top Visited Web Sites in Kenya

<table>
<thead>
<tr>
<th>Top 10 Visited Sites in Kenya</th>
<th>Top 10 Local Sites Visited</th>
<th>Rank of Local Sites Among All Visited</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Yahoo!</td>
<td>1 Nation Media</td>
<td>12</td>
</tr>
<tr>
<td>2 Google.co.ke</td>
<td>2 East African Standard</td>
<td>15</td>
</tr>
<tr>
<td>3 Google.com</td>
<td>3 Kenyaonetours</td>
<td>27</td>
</tr>
<tr>
<td>4 Facebook</td>
<td>4 Haiya.co.ke</td>
<td>33</td>
</tr>
<tr>
<td>5 Windows Live</td>
<td>5 Capitalfm.co.ke</td>
<td>40</td>
</tr>
<tr>
<td>6 MSN</td>
<td>6 Kenya Revenue Authority</td>
<td>42</td>
</tr>
<tr>
<td>7 YouTube</td>
<td>7 Butterfly.co.ke</td>
<td>50</td>
</tr>
<tr>
<td>8 Blogger.com</td>
<td>8 Intokenya</td>
<td>53</td>
</tr>
<tr>
<td>9 Wikipedia</td>
<td>9 Rick.co.ke</td>
<td>57</td>
</tr>
<tr>
<td>10 BBC Newline</td>
<td>10 Best Jobs Kenya</td>
<td>59</td>
</tr>
</tbody>
</table>

*Source: Alexa (Accessed 10 July, 2009).*
From Table 2-2 above it can also be argued that there may be an issue of involvement whereby the Kenyan users of the Internet may be experiencing a level of limited fluency on use and development of Internet-based resources. Therefore, to ensure that a suitable ICT policy and strategy is formulated, it is imperative to correctly frame the policy question that serves as a guide in the design of strategic approaches to the use of ICT for all. This is because, globally, blind technology deployment without complete evaluation of factors that influence user adoption and acceptance has been perilous in Africa (Evers and Day, 1997). Warshauer (2003) states: “... the stratification that does exist regarding access to online information has very little to do with Internet per se, but has everything to do with political, economic, institutional, cultural ... contexts. Thus, the inequality ... is social, not digital.” It’s therefore fairly fitting to state that the greatest challenge should be to dismantle the socio-cultural, political and economic barriers to bridging the digital divide.

The urgency to dismantling the barriers to bridging the digital divide is supported by the observation that of the four top countries with the highest degree of income distribution inequality in the world, two are African: Kenya and South Africa (Sakwa, 2006.) The lack of political will particularly in Kenya of ameliorating the income distribution inequality could further exacerbate the digital divide in addition to illiteracy problems and gender issues in development. On the basis of these bottlenecks among others even if access is present, some people may as a matter of personal choice or otherwise not use the technology. This makes it imperative that a holistic approach to bridging the digital divide is necessary. The Access-Involvement-Interaction model (AII) therefore becomes a natural choice since it integrates several dimensions including the social, political economic among others that as noted above affect the extent of use of the ICT and related technologies. The AII model is summarised in Figure 2-1 below:

The case for and the relevance of AII model in helping to strategise on bridging the digital divide can be seen from the status of Internet penetration and therefore connectivity in Africa. At the regional level in terms of Internet penetration and connectivity, Africa is the most digitally isolated in the world. This is depicted in Figure 2-2 below.

![Figure 1: The Conceptual Framework of Digital Divide](image1)

![Figure 2: Internet Penetration in Africa, 2010 Q1 March 2009](image2)

Source: Internet World Statistics, 2009
Knowledge Management for Industrial Innovation and Development

The fact that Africa is the most digitally isolated narrowing down to the national breakdown of Internet users in Africa for Sub-Saharan African countries it can be argued to be more digitally isolated in comparison to the North African countries (see Figure 2-3 below). From Figure 2-3 it can also be noted that even the technologically advanced economies such as South Africa are themselves having lower number of Internet users in comparison to the North African countries. These evidences therefore point to the argument that digital divide will not be well understood if it is viewed purely as a technological phenomenon.

Figure 3: National Breakdown of Internet Users in Africa

Source: Internet World Statistics, 2009

Generally access to ICT and its related technologies has been looked at as related to acquisition of the hardware that is material access and the software which can be argued to be mental access that is acquiring the necessary knowledge enabling one to use these technologies. The implication of this is that digital divide is a technological as well as a non-technological phenomenon. Even from Figure 2 and Figure 3 above, comparing each of the nations, it is evident that even if access-oriented definition, as commonly used in literature is pursued, the digital divide is still not understood if it is viewed purely as a technological phenomenon. This is affirmed by Van Dijk and Hacker (2003) who claims that the extent and nature of digital divide depend on a multifaceted concept of access and difference has to be made between four kinds of access: mental access, material access, skills access and usage access. Though the public policy has been preoccupied with material access, access problems has been observed as gradually shifting from the material and mental access to skill access and usage access.

In conclusion, it can be argued that it is critical to include ethical, economic, social and other concerns specific to respective societies of interest as an explicit part of analysing digital gaps. If policy researches included recognition of social ethos and motivation with the findings, it is envisaged that better results and alleviation strategies would be produced with more defensible linkages with ground realities for deliberations regarding the diffusion of Internet, ICT and its related technologies to the society of interest leading to a more efficient policy prescriptions.

4 Methodology

The research design was a survey utilising a quantitative approach. This was necessary given that it was a policy study that required generalisation. The target population were the civil servants, students and the housewives these to represents the people of different social, economic and cultural statuses. Sampling procedure utilised cluster sampling as well as snowballing particularly when it came to sampling the housewives. The technique of data collection was by a questionnaire where a total of 210 respondents, 70 for each of the three categories targeted. These were self administered questionnaires which were distributed via email. The study was based on a questionnaire targeting...
ordinary citizens in Nairobi and immediate environs with special attention on three groups. While the civil servants were chosen to represent major executors of public policies for resolving the digital divide, the students were chosen as frequent users of digital infrastructures, future leaders and policy makers in Kenya hence their awareness served as a major index for the digital divide policies. Finally, housewives were chosen to cater for the vulnerable groups and helping to integrate gender issues in the study.

To test the hypotheses, four major variables were set forth. Two latent variables attached to each dimension of AII process and each equipped with a measurable variable as summarised in Table 3 below.

Table 3: Latent and Measured Variables

<table>
<thead>
<tr>
<th>Divide Dimensions</th>
<th>Latent Variables</th>
<th>Measured variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Access</td>
<td>Information Infrastructure</td>
<td>Mechanic Access</td>
</tr>
<tr>
<td></td>
<td>Access Opportunity</td>
<td>Access Gap</td>
</tr>
<tr>
<td>Information Involvement</td>
<td>Internet Interest</td>
<td>Use Confidence</td>
</tr>
<tr>
<td></td>
<td>Use Motive</td>
<td>Internet Function</td>
</tr>
<tr>
<td>Information Interaction</td>
<td>Work Performance</td>
<td>Utilisation Level</td>
</tr>
<tr>
<td></td>
<td>Information Literacy</td>
<td>Utilisation Dependency</td>
</tr>
<tr>
<td>Digital Divide</td>
<td>Gap To Use Infrastructure</td>
<td>Utilisation Number</td>
</tr>
<tr>
<td></td>
<td>e-Inclusion</td>
<td>Constraint Cognition</td>
</tr>
</tbody>
</table>

Source: Katz and Rice (2003)

Data analysis were based on descriptive analysis such as the mean, factor analysis to really see if the concepts used in the study reflect those of the respondents and exploratory regression analysis to determine the extent the independent variables influence digital divide.

5 Findings and Discussion

There was 83.0 percent rate of response and Figure 2 shows the sample characteristics.

Table 6: Respondents: Sample Characteristics

<table>
<thead>
<tr>
<th>Age Cluster</th>
<th>Civil Servants</th>
<th></th>
<th></th>
<th>Student</th>
<th></th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td></td>
<td>Female</td>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>33</td>
<td>7</td>
<td>44</td>
<td>29.3</td>
</tr>
<tr>
<td>25-34</td>
<td>10</td>
<td>10</td>
<td>18</td>
<td>3</td>
<td>3</td>
<td>44</td>
<td>29.3</td>
</tr>
<tr>
<td>35-44</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>16.7</td>
</tr>
<tr>
<td>45-54</td>
<td>7</td>
<td>5</td>
<td>13</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>16.7</td>
</tr>
<tr>
<td>None</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>2.7</td>
</tr>
<tr>
<td>Over 52</td>
<td>-</td>
<td>5</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>5.3</td>
</tr>
<tr>
<td>Grand Total</td>
<td>22</td>
<td>28</td>
<td>50</td>
<td>36</td>
<td>14</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>
Below is Figure 4-1 which shows the theoretical perspectives - that is the hypothesised variables of the study and Figure 4-2 showing the empirical results after conduction factor analysis on the hypothesised variables?

**Figure 2: Theoretical Perspective – Hypothesised Variables**

![Diagram of theoretical perspectives]

A comparison between Figure 2 above and Figure 3 below shows that there was a difference between the theoretical hypothesised concepts and the respondents’ perspective on them except for information involvement.

**Figure 4: Empirical Results - Factor Analysis**

![Diagram of empirical results]

Table 4 below summarises the sampling adequacy of the collected data and the factor analysis generally it shows that they were adequate for further analysis.

**Table 5: Empirical Factors: Measures of Sampling Adequacy**

<table>
<thead>
<tr>
<th>KMO Measure</th>
<th>U.Access</th>
<th>M.Access</th>
<th>Interest</th>
<th>Confidence</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>KMO Measure</td>
<td>0.75</td>
<td>0.79</td>
<td>0.68</td>
<td>0.51</td>
<td>0.79</td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td>Chi-Square</td>
<td>513.73</td>
<td>379.13</td>
<td>89.36</td>
<td>93.77</td>
</tr>
<tr>
<td>df</td>
<td>15</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Sig.</td>
<td>p&lt;0.001</td>
<td>p&lt;0.001</td>
<td>p&lt;0.001</td>
<td>p&lt;0.001</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

**Digital Divide: An analysis**

In factor analysis, all items related to *digital divide* appeared to belong to one factor with a reliability of $\alpha = 0.840$. This was labeled *universal access* and the general concept operationalised as follows: "Your access to the Internet is the same compared to other people". This is summarised in Figure 4-3 below.
Figure 5: Factor Analysis Results for Digital Divide Concept

The factor analysis for digital divide resulted in one factor that was renamed universal access. Digital divide has been conceptualised as comprising two concepts: the frequency of utilising Internet as well as the ability to use the gadgets that are part and parcel of assessing the Internet. However, the factor analysis resulted in one factor which was renamed universal access as basically the two concepts constitute the basics of accessing Internet. The mean indeed indicates that there are differences for universal access for the students and civil servants on one side and the housewives on the other (see Table 4-2 below).

Table 6: Sample Means: Digital Divide Dimension

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>Students</th>
<th>Civil Servants</th>
<th>House Wives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Access</td>
<td>3.23</td>
<td>3.66</td>
<td>1.92</td>
<td></td>
</tr>
</tbody>
</table>

Key to interpretations of the mean scores: strong objection (1.00-1.79), objection (1.81-2.59), neither objection nor affirmation (2.60-3.39), Affirmation (3.40-4.19) and Strong affirmation (4.20-5.00)

In terms of the mean scores as noted in Table 6 above there are differences. The civil servants affirming they experience universal access followed by the students and finally the housewives who have an objection on average of experiencing universal access. The extent to which these differences in means are significant is summarised in Table 7 below.

Table 7: ANOVA Pairwise Means Comparison for Universal Access

<table>
<thead>
<tr>
<th>Tukey’s Honestly Significant Difference (HSD) Test</th>
<th>(I) Category</th>
<th>(J) Category</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Access</td>
<td>Student</td>
<td>Civil servant</td>
<td>-0.435</td>
<td>0.125</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>House wife</td>
<td>1.302</td>
<td>0.125</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>House wife</td>
<td>Civil servant</td>
<td>-1.737</td>
<td>0.125</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>
There exist significant differences in *universal access* among the targeted respondents as noted in Table 4.3 above noting that the differences are significant among all the categories of individuals. This empirical perspective on awareness of *digital divide* agrees with the theoretical insights that the divide exists within countries; where the rich, the educated, the young, often males are most likely to use ICT (Fink & Kenny, 2003; Heeks *et al*, 2003). Therefore, as mentioned by other scholars, it is very important to consider comprehensively and holistically these elements of influence and choose flexible ICT strategies depending on specific regions or organisational situation (Baskaran and Muchie, 2006; Mossberger, Tolbert and Stansbury, 2003).

**Information Access**

In exploratory factor analysis items related to information *access* dimension, appeared to belong to one factor with a reliability of $\alpha = 0.839$. This was labelled *material access* and the concept operationalised as follows: - *Your access to the Internet is more probable compared to other people*. This is summarised in Figure 6 below.

**Figure 6: Factor Analysis Results for Information Access Concept**

The factor analysis for information access resulted in one factor that was renamed material access. This was based on the mechanic access and access gaps both concepts were based on the availability of the necessary infrastructure to the respondents. The mean scores indicates that there are differences in material access for the students and civil servants on one side and the housewives on the other (see Table 8 below).

**Table 8: Sample Means: Information Access Dimension**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean</th>
<th>Students</th>
<th>Civil Servants</th>
<th>House Wives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Access</td>
<td>3.19</td>
<td>3.78</td>
<td>2.05</td>
<td></td>
</tr>
</tbody>
</table>

Key to interpretations of the mean scores: strong objection (1.00-1.79), objection (1.81-2.59), neither objection nor affirmation (2.60-3.39), Affirmation (3.40-4.19) and Strong affirmation (4.20-5.00)

From Table 8 above the material access is much better for the civil servants followed by the student and finally the housewives. This can be explained by the observation that in terms of the necessary ICT infrastructure a lot has been done to ensure the civil servants have these gadgets in their respective offices. There has also been a move towards e-government which is further boosting the access to ICT infrastructure for the civil servants. The same can be argued for the
students as noted by the many campaigns that encourage students to own computers among other ICT gadgets. For the housewives although Nairobi is well endowed with these facilities in terms of cyber café and even the mobile telephone penetration their access is still not facilitated by any policy towards increasing access and ownership of these ICT gadgets.

Table 9: ANOVA Pair wise Means Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>(I) Category</th>
<th>(J) Category</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Student</td>
<td>Civil servant</td>
<td>-0.583</td>
<td>0.134</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Access</td>
<td>Student</td>
<td>House wife</td>
<td>1.14</td>
<td>0.134</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>House wife</td>
<td>Civil servant</td>
<td>-1.723</td>
<td>0.134</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

University students have recognition on the importance of online information access for research but one of the major barriers is the cost implication for possible access hence possible reason for significant difference of material access probability between civil servants and students (see Table 9 above). On the other hand the vulnerable class represented in this research by housewives, indicate a significant level of difficulties in terms of material access.

This confirms Pigato’s claim that digital divide often follows and reinforces existing inequality and poverty patterns (Pigato, 2001). It also agrees with the theoretical insights that designers often fail to recognise the rights and access requirements necessary for people with disabilities among other disabling conditions which require specific approaches in ICT policies design (RNIB, 2000).

**Information Involvement**

The items related to the dimension of involvement, resulted into two separate factors labelled internet interest and Internet confidence with a reliability of $\alpha = 0.721$ and $\alpha = 0.813$ respectively. The general concepts were operationalised as follows: - (for Internet interest) “You are more interested in approaching the Internet than other people” and (for Internet confidence) “Your level of confidence in utilising the Internet is more than other people.” This is summarised in Figure 6 below.

**Figure 6: Factor Analysis Results for Information Involvement**

The factor analysis of the information involvement yielded the same results as predicted by the theoretical framework. This indeed confirms that the population did recognise that interest and confidence of use of the Internet are two different things. As noted in the Table 9 below in terms of the mean scores the students (3.55) and the civil servants (3.80) have higher confidence in the use of Internet than the housewives (1.72). This can imply that the frequency of use of Internet
and its related technologies for the housewives which is critical to creating confidence is lower in comparison to students and civil servants. When it comes to Internet interest the mean score for the housewives are comparable to those of the students and the civil servants implying the Internet has information among other things that are of benefit to the all.

Table 9: Sample Means: Information Involvement Dimension

<table>
<thead>
<tr>
<th>Factors</th>
<th>Students</th>
<th>Civil Servants</th>
<th>House Wives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Interest</td>
<td>3.55</td>
<td>4.11</td>
<td>3.42</td>
</tr>
<tr>
<td>Internet Confidence</td>
<td>3.39</td>
<td>3.8</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Key to interpretations of the mean scores: strong objection (1.00-179), objection (1.81-2.59), neither objection nor affirmation (2.60-3.39), Affirmation (3.40-4.19) and Strong affirmation (4.20-5.00)

In ANOVA pair wise comparison of means in Table 10 below, though civil servants, students and housewives have interest in Internet, the level of interest for housewives is relatively lower than that of civil servants but insignificantly different from that of students. In addition, unlike housewives, the difference in level of confidence amongst students and civil servants is not significant.

Table 10: ANOVA Pair wise Means Comparison

<table>
<thead>
<tr>
<th>Tukey’s Honestly Significant Difference (HSD) Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Interest</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Confidence</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

It is indeed true that over twice as many employed people are on-line than there are unemployed (Booz-Allen and Hamilton, 2000) and so eradicating joblessness is another strategy of alleviating digital divide. There is an agreement with the theoretical insights that involvement takes places when Internet is used in solving problems or has a utility value in economic or psychological terms. In sum, need exists to draw up measures to encourage users to have motivation with the view to boosting the utilisation of the Internet. The state funded incentives for instance, should encourage dissemination of contents of relevance and of interest to the wide range of citizens.

Information Interaction

Following exploratory factor analysis, most of the items related to information interaction, appeared to belong to a single factor. The factor was labelled Internet literacy and the general concept operationalised as follows: You have superior skills in utilising the Internet to other people. This is summarised in Figure 4-6 below.
The information interaction factor analysis resulted in one factor which was relabelled internet literacy. This is because it combined both the utilisation levels and level of dependency while accessing and using the Internet which together can be argued to be in the dimension of internet literacy levels. The differences in the mean as summarised in Table 11 below shows that indeed there are differences in literacy levels most prominent between the students and civil servants on one hand and the housewives on the other.

Table 11: Sample Means: Information Interaction Dimension

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Students</th>
<th>Civil Servants</th>
<th>House Wives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Literacy</td>
<td>3.38</td>
<td>3.31</td>
<td>2.35</td>
<td></td>
</tr>
</tbody>
</table>

Key to interpretations of the mean scores: strong objection (1.00-179), objection (1.81-2.59), neither objection nor affirmation (2.60-3.39), Affirmation (3.40-4.19) and Strong affirmation (4.20-5.00)

It is noteworthy that, unlike civil servants and students who utilise Internet in their roles, housewives seem to experience lowest level of Internet use and skills hence the level of interaction with this digital technology is relatively lower. This literacy factor can also be explained on the basis of employment where one gets to acquire ICT-related skills through its use in meeting daily chores hence the daily chores can also define need for and sharpening of ICT skills. The literacy rate is evident as higher among students and high income segments (see Table 4-8 above). The results in Table 11 has grounding from theoretical insights as the continued utilisation of Internet is significant since no more is it citizens’ role simply to consume, the consumer is becoming a creator (Smith et al, 1999) and therefore superior skills are needed to create over and above consuming the existing Internet resources.

In ANOVA pair wise mean comparison in Table 12 below, a significant difference between housewives and the other sub samples exists but none exist between students and civil servants.
Table 12: ANOVA Pairwise Means Comparison

<table>
<thead>
<tr>
<th>Variable</th>
<th>(I) Category</th>
<th>(J) Category</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>Student</td>
<td>Civil servant</td>
<td>0.075</td>
<td>0.095</td>
<td>0.709</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>House wife</td>
<td>1.03</td>
<td>0.095</td>
<td>(p&lt;0.001)</td>
</tr>
<tr>
<td></td>
<td>House wife</td>
<td>Civil servant</td>
<td>-0.955</td>
<td>0.095</td>
<td>(p&lt;0.001)</td>
</tr>
</tbody>
</table>

In addition, unlike civil servants and students who utilise Internet in their roles, housewives seem to experience lowest level of Internet skills hence the level of interaction with Internet for the vulnerable class is relatively lower, also explained by their low level of ICT skills.

Regression Analysis on Digital Divide

While the above sections indicate that there are actually differences between the students, civil servants and the housewives as far as the their perception on how they fare on the different factors contained in the AII model this section will analyse the extent to which these factor influences digital divide for each of the respective group of respondents. The framework of analysis is based on Figure 6 above and the results are summarised in Table 12 below.

Table 12: Summary Regressions for the Overall, Housewives, Civil Servants and Students

<table>
<thead>
<tr>
<th>Regression Model</th>
<th>Independent Variables</th>
<th>Material Access</th>
<th>Internet Interest</th>
<th>Internet Confidence</th>
<th>Internet Literacy</th>
<th>Adjusted R Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Coefficient Significance</td>
<td>0.598 (&lt;0.001)</td>
<td>0.051 0.234</td>
<td>0.196 0.004</td>
<td>0.144 0.020</td>
<td>0.194</td>
</tr>
<tr>
<td>House wives</td>
<td>Coefficient Significance</td>
<td>0.386 (0.002)</td>
<td>0.432 0.003</td>
<td>0.542 &lt;0.001</td>
<td>0.061 0.515</td>
<td>0.664</td>
</tr>
<tr>
<td>Civil Servants</td>
<td>Coefficient Significance</td>
<td>0.161 0.472</td>
<td>0.089 0.332</td>
<td>0.326 0.106</td>
<td>0.421 0.001</td>
<td>0.612</td>
</tr>
<tr>
<td>Students</td>
<td>Coefficient Significance</td>
<td>0.717 (&lt;0.001)</td>
<td>0.196 0.064</td>
<td>0.163 0.160</td>
<td>0.233 0.071</td>
<td>0.580</td>
</tr>
</tbody>
</table>

Dependent variable: Universal access

From Table 12 above, it is clear that there are different factors that contribute to digital divide that need to be addressed. For the civil servants only Internet literacy seems to be of significant influence on universal access that is digital divide. All the other factors do not influence digital divide for the civil servants. In the case of students only material access is of significant influence on digital divide. These findings confirm the above discussion that civil servants have access to the necessary infrastructure for them to access Internet. While this may be case for students however their numbers implies access points are limited while at the same time they may not have the necessary resources to pay for access to the Internet for example. Therefore the recent programme of *Wezesha* where university students could purchase laptops at discount prices was a attempt in the right direction but more ought to be done since the discount may not have been too great to ensure most of the students acquired the laptop.
Housewives on the other hand their digital divide was influenced by material access, Internet interest and Internet confidence (see Table 12 above). Interestingly Internet literacy seems as not a significant factor influencing their digital divide. The coefficient is highest for Internet confidence which implies either inability to access the Internet often or the limited extent of the relevance of what is contained in the cyberspace. The lack of influence of Internet literacy for the housewives gives the impression contrary to expectations the general public may be well versed on the use of Internet and its related technologies at least in the urban areas. This is confirmed by the overall regression where among the significant factors Internet literacy has the lowest potency.

On the overall regression (see Table 12 above) the material access has the highest implying that it is a critical factor contributing to digital divide. This is followed by Internet confidence implying there is need to increase opportunities to accessing Internet and its related technologies. A possible way is to ensure costs of accessing are reduced to accessible levels. This calls for affirmative action in terms of costs reduction particularly for the vulnerable groups and the low income earners.

6 Conclusions and Recommendations

In terms of the digital divide measured as universal access the results showed that the mean scores differences between the three categories of respondents were significant. It can therefore be concluded that each of these groups of respondents requires a different policy approach that specifically addresses the issues unique to each group. The recommendation then is that ICT policies ought to be as much as possible context specific more importantly they should be developed after taking into account inputs from the targeted groups.

For the students and even the civil servants efforts have been expended in ensuring that somehow they are able to access and own the different ICT and related gadgets. When it comes to the housewives who can be argued to depend on market based models such as “cyber cafes” a concerted effort to ensure that these facilities are within reach and affordable is still to be realised. It is therefore recommended that policies that enhance the access and use of these facilities for the general public particularly those experiencing disabling conditions be mooted.

In the strict sense it seems that access to the Internet and related technologies is highly related to whether or not one is in employment. The civil servants as per the results above had mean scores on the affirmative that they are more likely to access the Internet and its related technologies in comparison to students and housewives. This confirms the theoretical perspective that those in employment are more likely to be online than those not in employment. The conclusion then is that eradicating joblessness is a good strategy to alleviating digital divide. It can therefore be recommended that investment in ICT and related technologies ought to be enhanced as apparently it is one of the main growth and dynamic sectors, particularly when it comes to employment creation and income generation, in the World.

The regression results for Internet literacy produced interesting results. For the housewives Internet literacy did not influence the dependent variable universal access (digital divide). The most likely interpretation is that contrary to expectations the general public may be well versed on the use of Internet and its related technologies at least in the urban areas. However it is recommended that further research be conducted to show if indeed this is the case.

For the civil servants Internet literacy was the factor that influenced the dependent variable universal access (digital divide). Although this was unexpected taking into account the efforts towards entrenching e-government it can probably be explained that not all in this sector require ICT and related technologies for them to function. However it is recommended that further research to be done to categorise and analyse those who are ICT compliant since the success of the efforts towards e-government depends on appreciation and use of ICT and its related technologies.
7 References


Legislations
The Kenya Communication (Universal Access and Service) Regulations, 2009
Electronic Media


Internet Usage & Telecommunication Reports, ITU 2010
Date accessed: 8th –March-2010


Communication Commission of Kenya Reports, CCK, 2010
Date accessed: 26th –April-2010
The Role of Human Resource Management Practices in Adoption of Competitive Strategies by Mobile Phone Service Providers in Kenya

1Kiriri, Peter N. (PhD); 2Guyo, Wario W. (PhD) and 3Matta, Ngao Sammy – (1United States International University, Nairobi Kenya, and 2&3Jomo Kenyatta University of Agriculture and Technology, Kenya)

1 Abstract

Effective adoption of various competitive strategies by mobile phone service providers in Kenya is greatly hampered by difficulties in linking the key human resource management roles and competitive strategies. The general objective of this study was to establish the role of human resource management in adoption of competitive strategies by mobile phone service providers in Kenya. The specific objectives were; to find out the effect of training in adoption of competitive strategies by mobile phone service providers in Kenya, to establish the effect of recruitment in adoption of competitive strategies by mobile phone service providers in Kenya, to determine the effect of staff retention in adoption of competitive strategies by mobile phone service providers in Kenya and to find out the effect of talent management in adoption of competitive strategies by mobile phone service providers in Kenya.

The study population was all four mobile telephony service providers in Kenya comprising of Airtel (formerly Zain), Orange (Formerly Telkom Kenya), Yu (Formerly Essar) and Safaricom. Since the study involved strategic aspects of the business, the study targeted all eight senior managers that deal with business strategy in all the four companies. The study applied the census technique to select all the staff in the study population as respondents. The study thus selected a total of thirty two managers. The study collected only primary data using structured and unstructured questionnaires where the respondents were asked both open end and closed ended questions. A pilot study was conducted to test the reliability of the questionnaires. The study gathered both quantitative and qualitative data and applied descriptive statistics data analysis methods aided by SPSS software to present the findings on tables, pie charts and bar charts. Regression analysis was also used to show the relationship between the research variables.

The study notes that training on adoption of competitive strategies is rarely conducted and this denied organisation staff an opportunity to gain more competitive skills on effective application of various organisation strategies that influence achievement of a competitive edge in the target market. The study notes that staff recruitment plays a key role towards facilitating adoption of competitive strategies when competitive staffs are selected to execute various organisation job tasks that contributed towards adoption of competitive strategies. The study found out that application of staff retention strategies such as employee engagement, promotion of team culture, recognition of performance and career development influences adoption
of competitive strategies to a great extent. It further notes that all the mobile phone service companies have not effectively incorporated talent management in their respective organisation functions and this affected high level of staff involvement in adoption of competitive strategies. The study concludes that successful adoption of competitive strategies is dependent on how mobile phone service companies manage the key human resource management roles namely, training, staff recruitment, staff retention and talent management. To influence successful adoption of competitive strategies through effective execution of human resource roles, the study recommends application of effective staff training programmes, designing of effective human resource plans to guide in staff recruitment, implementation of staff retention strategies such as increased remuneration and career development opportunities. The study finally recommends Mobile phone service companies to develop a talent management system and link it into the organisation business strategy.

Key words: Competitive strategy, recruitment, employee retention, talent management and staff training

2 Introduction

HRM is the strategic and coherent approach to the management of an organisation’s most valued assets the people working there who individually and collectively contribute to the achievement of the objectives of the business (Barney, 2000). The terms human resource management and human resources (HR) have largely replaced the term “personnel management as a description of the processes involved in managing people in organisations. In simple words, HRM means employing people, developing their capacities, utilising, maintaining and compensating their services in tune with the job and organisational requirement (Armstrong, 2000). The HRM function includes a variety of activities, and key among them is deciding the staffing needs of an organisation and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring personnel and management practices conform to various regulations (Barney, 2000). Effective application of human resource management roles such a staff training and development, staff recruitment, staff retention and talent management plays a great contribution towards adoption of business competitive strategies.

Competitive strategy is the basis on which a business unit might achieve competitive advantage in its market. Organisations achieve competitive advantage by providing their customers with what they want or need, better or more efficiently than competitors, and in ways which their competitors find difficult to imitate (Johnson and Scholes, 2002). An effective strategy takes offensive or defensive action in order to create a defendable position against the competition. Porter argues that to be successful, a company or business unit must achieve one of the generic competitive strategies, otherwise the company will be stuck in the middle of the competitive market place, with no competitive advantage and it is doomed to be below average performance (Wheelen and Hunger, 1995). A company’s competitive strategy consists of the business approaches and initiatives, it takes to attract customers, withstand competitive pressures and strengthen its market position. The objective quite simply, is to knock the socks off rival companies ethically and honourably, earn a competitive advantage in the market place and cultivate a clientele of loyal customers. A company’s strategy for competing typically contains both offensive and defensive actions, with emphasis shifting from one to the other as market conditions warrant. It includes short lived tactical manoeuvres designed to deal with immediate conditions as well as actions calculated to have lasting impact on the firm’s long term competitive capabilities and market positions (Thompson and Strickland, 1996).
The competitive advantage of a firm is usually reflected in its superiority, in the resources it possesses and the performance outcomes of activities it undertakes (Day and Wensley, 1998). Resource based and environmental models of competitive advantage suggest that firms can obtain sustainable competitive advantage, by implementing strategies that exploit their internal strengths through responding to environmental opportunities, while neutralising external threat and avoiding internal weaknesses (Barney, 1991). The 1990s in Kenya heralded in the public sector reforms that called for liberalisation and market driven systems and business environments. This amounted to liberalisation of government controlled business towards market driven industries. Coupled with these local changes were the phenomenal advancements in information communication technology and globalisation. These immense changes impacted greatly on the previously protected economic environment in Kenya. In the areas of domestic market liberalisations the Government was to undertake, were reforms to ease restrictions on business entry and operations while putting in place appropriate safe guards or globally acceptable regulatory frameworks against anti competitive behaviour, money laundering and other vices. Since the introduction of liberalisation in Kenya (Government of Kenya, 1986), firms in almost all sectors of the economy are faced with competition. This calls for the need to devise strategies for effective competition. Only firms capable of formulating and implementing effective competitive strategies will achieve profitability, continuity and growth (CCK, 2010).

**Mobile Phone Service Providers in Kenya**

An industry can be defined as a group of firms producing products or services that are close substitutes for one another (Porter, 1998). The mobile phone service providers are those organisations that are involved in the provision of voice, or data, and value added services to mobile users; growth in the industry has resulted to the operators diversifying to include the highly successful money transfer service (CCK, 2010). Mobile telephone services in Kenya started in 1992 with the analogue system that was known as Extended Total Access Communication System (ETACS), which was commercially launched in 1993. During this entry period, the services were so expensive that it was only a few within the upper echelon of the society, who could afford the phones; the cost of owning a handset was as high as Kshs 200,000. This resulted in a marginal mobile subscriber growth of less than 20,000 for a period of seven years 1993 to 1999 (CCK, 2010). The CCK (2010) further mentions that the enactment of the Kenya Communications Act, 1998, led to the introduction of competition in the cellular mobile industry. The Communications Commission of Kenya (CCK) licensed the newly privatized Safaricom Limited and a new entrant Kencell, currently known as Airtel. This has witnessed a phenomenal growth in the number of subscribers, as well as geographic expansion of the cellular mobile service in the country. The number of licensed operators has moved to four, with the licensing of two additional mobile operators; Orange (Telkom) and YU (formally known as Essar).

It is therefore evident, that the major factors of competition in this industry revolve around building subscriber base, as opposed to retention and quality of clientele. The existing players have been intensely advertising and positioning their brands in various ways. This has inevitably touched on various factors of competition such as cost, customer care, network availability, reliability and social responsibility activities among others (Ngobia, 2004). Higher education further writes that there are many challenges facing the industry; more entrants have brought about fierce competition with price wars being the order of the day in the mobile phone service providers industry. Consumers face the challenge of moving from one service provider to another, since there is currently no number portability, or having multiple lines to suit their needs at various times. The fast growth of the mobile sector has resulted in a massive network roll out in the country; this has led to uncoordinated construction of masts and towers by operators. This has brought about public concern on perceived health and safety effects associated with exposure to the electromagnetic emissions from towers and base transceiver stations, environmental concerns in regards to the impact of communications networks on natural beauty, and allegations that public participation as
provided for under the Environmental Management Coordination Act (EMCA, 1999) has not been adhered to may have potential to impede coverage (CCK, 2010).

With the changing business environment, firms are finding it increasingly difficult to find industry environment in which there are good enough conditions that allow a rate of return above the competitive level. Competitive strategies provide a framework for the firms to respond to various changes within the firms operating environment. Firms also develop competitive strategies that enable them to develop strategic initiatives and maintain competitive edge in the market (Grant, 1998).

The importance of the mobile phone service industry cannot be underscored in Kenya. It has been a catalyst to many businesses since many of them cannot do without communication. The industry has also provided employment to many people in the country. Money transfer services such as MPESA, Zap, and Iko Pesa, have enabled the un-banked population to transact and also made it easier for people in the deeply remote areas to access money. In addition, the mobile phone industry is a major source of revenue to the Government, with Safaricom being the leading tax payer in the country (GOK, 2009). More entrants into the industry has intensified competition and lowering costs from provider to provider, for hopefully better services, and freedom for subscribers to abandon displeasing providers. Price wars coupled with the implementation of the unified licensing framework, and the implementation of a new interconnection framework will force the players to be more innovative and mind about their competitive strategies, so as to survive in a market where there is a cut throat competition (GOK, 2010).

Statement of the Problem

Effective adoption of various competitive strategies by mobile phone service providers in Kenya is greatly hampered by difficulties in linking the key HRM roles and competitive strategies. According to Murage (2001), successful implementation of competitive strategies such as service differentiation strategy calls for extensive staff training which a key HRM's role is. However, mobile service providers leave a substantial part of training to their marketing department which fails to recognise the required staff training needs and diverse needs of the organisation. According to Karanja, (2002), recruitment of staff by marketing staff is a key problem hindering adoption of competitive strategies by various mobile service companies since marketing staff lack ability to effectively execute recruitment process in a way that leads to selection of competent and very skilled personnel. Karanja, (2002) further highlights that recruitment is a human resource role and it continues weakening organisation efforts towards adoption of competitive strategies when left in the hands of marketing departments. According to Obado, (2005), Mobile phone service company's faces high staff turnover rates as result of failure by the HRM departments to implement staff retention strategies. This has hence influenced some mobile service companies to abandon various competitive strategies initiated by the leaving staff. Obado, (2005) suggests that mobile service companies needs to understand how staff retention affects adoption of competitive strategies and then determine measures to employ to retain competitive and skilled staff.

Waruguru, (2007) states that human resource managers in mobile service firms have not yet embraced the role of talent management and this has led to engagement of staff to various job task functions which portray poor performance. Adoption of competitive strategies borrows much influence from employee's talents and there is a need for human resource managers to recognise talent management as a key human resource function that contributes towards successful adoption of competitive strategies. In spite of having many studies undertaken, like Murage (2001) Karanja (2002) Obado (2005) and Waruguru, (2007) the role of Human Resource Management in adoption of competitive strategies by mobile service companies remains a major challenge responsible for loss of market share and declined sales turnover. Failure by past researchers to link human resource roles and competitive strategies has created wide knowledge gaps that have weakened competitive strategies adopted by mobile service companies. To fill the missing gap, the study's main purpose
was to establish the role of Human Resource Management practices in adoption of competitive strategies by mobile phone service providers in Kenya.

**General Objective**

The general objective of this study was to establish the role of HRM practices in adoption of competitive strategies by mobile phone service providers in Kenya.

**Specific Objectives**

1. To establish the effect of recruitment in adoption of competitive strategies by mobile phone service providers in Kenya.
2. To determine the effect of training in adoption of competitive strategies by mobile phone service providers in Kenya.
3. To establish the effect of staff retention in adoption of competitive strategies by mobile phone service providers in Kenya.
4. To assess the effect of talent management in adoption of competitive strategies by mobile phone service providers in Kenya.

**Research Questions**

1. What is the effect of training in adoption of competitive strategies by mobile phone service providers in Kenya?
2. How does staff recruitment affect adoption of competitive strategies by mobile phone service providers in Kenya?
3. How does staff retention affect adoption of competitive strategies by mobile phone service providers in Kenya?
4. How does staff talent management affect adoption of competitive strategies by mobile phone service providers in Kenya?

**Justification**

Policy makers both in government and regulatory authorities, and in the private sector shall be able to utilise the findings of the study, in informing their decisions regarding the way forward in the mobile phone service providers industry; also to enhance policy formulation to enable the industry record further growth and create synergy with the stakeholders. The findings in this study shall be useful to human resource managers at all levels in the mobile phone service provider industry since the findings will guide human resource managers on how to employ the major human resource roles that contribute towards successful adoption of various competitive strategies. The management and interested investors in the mobile telephony industry can also use the findings of the study in crafting viable strategies, in respect to investment and other aspects in their organisations.

The study shall also be used by researchers in both academia and business as a reference tool in evaluating the growth, competitiveness and the attractiveness, of the mobile phone service providers industry in Kenya.

**Limitation of the Study**

The researcher encountered various limitations that attempted to hinder access to information sought by the study. This include some of the respondents being reluctant in giving information fearing that the information they gave might be used to intimidate them or print a negative image about their organisation. The researcher handled the problem by carrying an introduction letter from the university and assured the respondents that the information they gave was to be treated confidentially and was to be used purely for academic purpose. The study experienced resistant from organisation management since some of the information sought was termed as confidential.
and of threat to competitors. The researcher presented an introduction letter detailing the academic purpose and intention of the study and this influenced top management to give information sought by the researcher.

Scope
The study covered mobile service providers in Nairobi, Kenya. There are four service providers in Kenya namely Airtel (formerly Zain), Yu (Formerly Essar) Orange (formerly Telkom Kenya) and Safaricom. The researcher used questionnaires filled out by senior managers in all four mobile companies. The study was carried out between January and March 2011.

3 Conceptual Framework
Training is the process of equipping staff with more knowledge and skills on effective execution of various job task functions. To facilitate adoption of competitive strategies, HRM identifies staff training needs through skills gap analyses and conducts training to fill the employee’s skills gap on execution of various job task functions that influences adoption of competitive strategies such as service differentiation strategies. Staff recruitment is the process of identifying and hiring best-qualified candidate from within or outside of an organisation for a job vacancy, in a most timely and cost effective manner. Application of effective staff recruitment strategies influences acquisition of skilled staff who demonstrates high level of competency in application of organisation marketing functions that contributes towards adoption of competitive strategies. Employee retention is a business management term referring to efforts by employers to retain current employees in their workforce. Application of effective staff retention strategies minimises cases of high staff turnover rates that could make the organisation loose skilled and experienced staff. Staff retention thus leads to retention of skilled staff with required competencies for adoption of competitive strategies. Talent management refers to the skills of attracting highly skilled workers, of integrating new workers, and developing and retaining current workers to meet current and future business objectives. Companies engaging in a talent management strategy shift the responsibility of employees from the Human Resources department to all managers throughout the organisation. Talent management ensures that all organisation functions are executed by not only qualified personnel but also talented staffs who demonstrate high level of perfection in execution of organisation functions. Figure 1 shows a graphic representation of the conceptual framework.

4 Methodology

Research Design
The study used a descriptive research design since the study intended to gather quantitative and qualitative data that provided information of the role of HRM in adoption of competitive strategies by mobile telephony service providers in Kenya. According to Babbie (1989) descriptive research is used to obtain information concerning the current status of the phenomena to describe “what
exists” with respect to variables or conditions in a situation. The study considered this design appropriate since it facilitated the gathering of reliable and accurate data that clearly depicted the status of HRM roles in adoption of competitive strategies in mobile phone service companies.

Population

The target population comprised of all mobile phone service providers in Kenya. Target population? According to recent data by the CCK web site, there are four major mobile phone service providers; Safaricom, Airtel (Zain), Orange and YU. The questionnaires were issued to eight senior managers in each of the firms. As mentioned earlier the study respondents were only managers concerned with strategies development and implementation in the four respective companies.

Sampling Design

The study adopted the census method to select respondents from the senior managers in each company. The study targeted 8 managers who were responsible for strategy and policy framework and formed part of the top management team. According to Polit (1999), a census is the process of obtaining information from every member of a population. In this study, census ensured that all respondents are involved in giving their opinions on strategy. Therefore, the total number of the respondents in the sample size was thirty two.

Data Collection

Primary data was collected by way of a semi structured questionnaire. The questionnaire with both open ended and closed questions was developed in line with the study objectives and is divided into three parts: The first part targeted the demographic aspects of mobile phone services providers. The second part focused on issues affecting adoption of competitive strategies per each research variable.

Pilot Study

A pilot study was conducted to test reliability of the questionnaires. This involved selecting four respondents from internet board band data providers like Access Kenya Limited or MTN Business Limited manager level and issuing them with the questionnaires. Data was obtained using the questionnaires and after evaluating and identifying that the answers are properly answered. Questionnaires were issued to respondents in the sample size. Data reliability played an important role towards generalisation of the gathered data to reflect the true characteristics of the study. The researcher drew much emphasis in various incentives to encourage full participation and filling in of the questionnaires by the respondents. The respondents were assured copies of the study outcome, they also assured of the researcher’s confidentiality and their responses anonymity was guaranteed.

The questionnaire were administered through the drop and pick method. The respondents of this study were drawn from top level and mid level management of the respective mobile phone service providers; specifically the CEO’s, marketing managers and general managers were requested to complete the questionnaires.

5 Data Analysis and Presentation

The study produced both quantitative and qualitative data. Quantitative analysis method was applied to analyse quantitative data where data was scored by calculating the percentages and means. The SPSS computer software was used specifically for the purpose of analysing the quantitative data and presenting it inform of table, figures and graphs, in order to give graphical presentation of the role of Human Resource Management in adoption of competitive strategies by mobile phone service providers in Kenya. Linear regression analysis was employed to show the relationship between independent and dependent variables.
6 Findings and Discussions

Employees Training
The study found out training was major HRM role that affected adoption of competitive strategies by mobile phone companies. However, the study noted that training on adoption of competitive strategies was rarely conducted as and this denied organisation staff an opportunity to gain more competitive skills on effective application of various organisation strategies that influenced achievement of a competitive edge in the target market. The organisations were found to employ various measures that could lead towards application of key strategies notably, cost leadership, focus strategy, automation of processes and differentiation strategy. Training was found to affect adoption of these strategies to a great extent and thus the success of these was dependent on how staff was exposed to marketing training programmes.

Recruitment
The study noted that staff recruitment played a key role towards facilitating adoption of competitive strategies when competitive staffs were selected to execute various organisation job tasks that contributed towards adoption of competitive strategies. The study identified that human resource planning, internal recruitment, external recruitment and outsourcing affected staff recruitment to a great extent since to ensure that competent and skilled staffs were recruited at the right time, the organisations were found to conduct human resource planning, internal recruitment, external recruitment and outsourcing of various professionals to guide on effective application of competitive strategies.

Staff Retention
The study found out that application of staff retention strategies such as employee engagement, promotion of team culture, recognition of performance and career development influenced adoption of competitive strategies to a great extent and lack of staff retention strategies led to loss of skilled and experienced on strategy implementation as result of high staff turnover rates. Staff retention was found to influence availability of staff with competitive skills on effective adoption of competitive strategies. In cases of high staff turnover, organisation strategy implementation processes were disrupted and this resulted to loss of market share in the target market.

Talent Management
The study found out that competency-based management, talent review, employees’ interests, sharing information and performance and career potential of employees influenced talent management to affect adoption of competitive strategies to a great extent. It was noted that all the mobile phone service companies had not effectively incorporated talent management in their respective organisation functions and this affected high level of staff involvement in adoption of competitive strategies.

7 Conclusion
Based on the study findings, the study concluded that successful adoption of competitive strategies was dependent on how mobile phone service companies managed the key HRM roles namely, training, staff recruitment, staff retention and talent management. Staff training influences organisation employees demonstrate the required competencies in adoption of competitive strategies as continuous staff training to facilitate the gain of core competencies amongst most staff. This contributes to strengthening of organisation human resource capacity that assists in designing of various techniques for facilitating successful adoption of competitive strategies. Some of the competitive strategies applied by mobile phone service companies like differentiation, cost
leadership and focus strategies require organisation to have very competent staff. It should be noted that absence of staff training and development programmes denies staff ability to effectively support adoption of competitive strategies leading to loss of market share to the competitors.

Staff retention is a major HRM role that contributes towards adoption of competitive strategies. Application strategic staff retention techniques such as increased remuneration, better staff motivation facilities such as career development and employees benefits reduces cases of high staff turnover rates making the organisation to retain competent and highly experienced staff in competitive strategies adoption.

Sourcing, attracting, recruiting and on boarding qualified candidates with competitive backgrounds is a major role of HRM that influences successful adoption of competitive strategies. However, application in effective recruitment procedures that lead to selection of incompetent and inexperienced staff lowers the capability of the organisation human resource capacity to effectively assist in adoption of competitive strategies. Mobile phone service companies should design effective human resource plans to guide on when, how and who to recruit to support adoption of competitive strategies.

Mobile service companies employ HRM activities like staff competency management that only aim to develop non-contingent capabilities like leadership to meet the basic requirements for future strategy and are often un-related to the competitive strategy itself. As a result, very few HR plans address the real need to achieve competitive advantage through differentiating capabilities using employees' talent management strategy. In effect, most HRM activities aim to develop people who are competent in the same areas as their competitors which clearly cannot influence successful adoption of competitive advantage. This may be the major reason why HRM functions in mobile phone services have generally failed to clearly link their activities to the achievement of competitive edge in the target market.

8 Recommendations

To influence successful adoption of competitive strategies through effective execution of human resource roles, the study gave the following recommendations.

1. The HRM of mobile phone service companies should undertake staff skills gap analysis to determine staff strengths and weaknesses. The HR management should then design and employ effective staff training programmes to equip staff with more knowledge and skills and thus fill the missing skills gap in the organisation. This will enable mobile phone service companies to have sufficient human resource capacity for supporting effective adoption of various competitive strategies.

2. Mobile phone service companies should design effective human resource plans to determine the type of staff to be recruited when the need arises. Effective staff recruitment procedures should be employed like subjection of candidates to psychometric tests to enable the organisation acquire the most skilled and competent staff in competitive strategies application.

3. To improve the level of staff retention, HRM should employ strategic staff retention techniques such as increased staff remuneration and better staff motivation facilities such as favourable working environment, employee rewards, and career development and employees benefits. This would ensure cases of high staff turnover rates are minimised and the organisation retains competitive and skilled staff capable of implementing organisation competitive strategies.

4. To influence adoption of competitive strategies through talent management. Mobile phone service companies should develop a talent management system and link it into the organisation business strategy. The system should be implemented in daily processes throughout the company as a whole and the implementation process should not be left solely to the Human Resources department to attract and retain employees, but rather must be practiced at all levels of the organisation. The business strategy must include
responsibilities for line managers to develop the skills of their immediate subordinates. Divisions within the company should openly share information with other departments in order for employees to gain knowledge of the overall organisational objectives. The talent management strategy should be supported by technology such as HRM Information Systems. Competency-based management methodologies should be used capture and utilise competencies appropriate to strategically drive an organisation’s long term plans.

5. The study narrowed its research undertakings into the four major human resource roles which were addressed by the specific objectives of the study. These roles only focused on the current status of the organisations and thus the obtained findings might not reflect the human resource roles that affect adoption of competitive strategies in future. The study therefore suggest further studies to be carried out currently and in future to establish other human resource roles that may affect adoption of competitive strategies and were not covered by the study such as change management and organisation restructuring. Further studies will also play a great role towards coming up with effective recommendations on how organisation should effectively employ HRM roles to achieve a competitive edge in the target market.

9 References


Turyahabwa, Joy – (Makerere University Business School, Kenya)

1 Introduction
Developing countries such as Uganda are looking at multinational companies to help them address pressing social problems such as massive poverty.

Objective
This paper undertakes to analyse the definition of CSR from the African perspective in Uganda.

Methodology
Both qualitative and quantitative data was gathered from Sheraton Uganda employees, trainees and locals using the Sheraton supported public gardens.

The quantitative data is derived from the results of the responses to the 12 structured items that describe the characteristics of a socially responsible company and were analysed by factor analysis. The qualitative data is derived from responses to the semi-structured question, ‘what do you understand by the term socially responsible business’, analysed by emergent themes.

Results
At factor analysis two main components were obtained namely ‘giving back to the community’ and ‘legitimacy’. At qualitative analysis the main themes were ‘giving back to the community’, ‘treats employees fairly’, ‘undertakes profitable business’, ‘provides local employment’ ‘is fair to its customers’, ‘does not discriminate persons’, and ‘engages in legitimate business’.

Conclusion
CSR from the Ugandan perspective is perceived predominantly as contributing to address the social problems of society and providing economic benefit mainly in form of employment opportunities. The ethical and legal responsibilities are not yet widely recognised as key components of CSR.

Key Words: Africa, Carroll's pyramid, Corporate Social Responsibility and Definition

2 Background
Uganda like many other Sub-Saharan African countries has been pursuing both structural adjustment programmes and anti-poverty programmes for the last three decades. While the above interventions have lead to significant microeconomic gains, they have not been very success in addressing poverty in most of these countries including Uganda (Uganda’s Ministry of Finance, Planning and Economic Development, 2006). For the case of Uganda, there are now growing calls
both internally from civil society pressure groups and from Uganda's development partners such as European Union (2006) and more recently the World Bank (2010) for a re-think of the current anti-poverty strategies (Among, 2006; The Independent, 2010).

One possible source of help for this endemic poverty is through the better harnessing of the Corporate Social Responsibility (CSR) potential on the African continent. The liberalisation of trade has seen the entry into all the African economies of multinational corporations which have come in mainly from the west where a culture of CSR is well established. CSR has been used by corporations in the west to address issues such as inequality, health and unemployment, but this concept has hardly taken root in developing countries in Sub-Saharan Africa such as Uganda. A possible role for CSR in addressing poverty and HIV/AIDS in the African situation of Uganda is the subject of JT's PhD thesis. This paper is, however, focusing on the local definition of CSR in the Ugandan urban setting of Kampala.

Uganda's Efforts to Eliminate Poverty

African countries such as Uganda continue to face massive poverty among its citizenry despite years of antipoverty interventions by government. According to poverty figures released by the Uganda Ministry of Finance, income inequality in Uganda has been growing from 35 percent to 39 percent, the proportion of farming households living in poverty has risen from 39 percent to 49 percent and the proportion of the poor among those employed in the non-agricultural sector has increased from 17 percent to 21 percent over the past few years (Among, 2006).

The National Resistance Movement (NRM) Government that came into power in Uganda in 1986 has had mixed results in its fight against poverty. In 1986, the NRM implemented economic structural adjustment programmes aimed at stabilising the macroeconomic environment and promoting growth in the hope that economic changes done would improve the lives of the poor in the long run through a ‘trickle-down’ mechanism. At the macroeconomic level these programmes were a success, between 1987 and 2001 GDP grew at an average annual rate of 6 percent. During this period inflation averaged about 5 percent a year, the stable economy increased foreign capital inflows and a strong commitment to poverty reduction allowed Uganda to reduce the proportion of people living in absolute poverty from 55 percent to 35 percent in just seven years (1992-1999) (Uganda Ministry of Finance, Planning and Economic Development, 2006).

But as early as 1992, the Government of Uganda and donors realised that structural adjustment programmes were hurting some social groups and causing disenchantment and possibly threatening the reform process. To address poverty in these groups the Government of Uganda has over the years implemented a number of anti-poverty programmes with mixed success. The first such programme was the Programme for the Alleviation of the Social Costs of Adjustments (PAPSCA) which provided services in areas where people affected by the reforms lived, and targeted credit programmes such as the Rural Farmers Credit Programmes and Seed Capital Programmes which help skilled groups and individuals who lack capital to initiate investment projects. This three-year programme aimed to alleviate poverty and to mitigate the adverse impacts of structural adjustment programme on certain vulnerable sectors and groups in society ended in September 1995 having disbursed US$ 31 million which funded 13 projects in 22 districts. Although some of the projects were successful, the programme benefits remained a drop in the ocean because at its termination most Ugandans were still absolutely poor (Balihuta, 1999).

Apparently dissatisfied with PAPSCA’s results, Government of Uganda launched The Entandikwa Credit Scheme in mid 1995 with the objectives: to reduce poverty in the long run; to provide seed money for a revolving fund to enable beneficiaries to access credit for sustainable development activities; to promote income – and employment – generating activities, particularly in those sectors of national priority where individual districts have a comparative advantage; to develop and strengthen the operational and managerial skills of both the intermediary agencies and the target groups/individuals through provision of both financial and technical assistance and training; and to transform individual/groups into economically viable entities. It was a top-down
scheme based on the following assumptions: that low income arising from lack of sufficient capital is the major cause of poverty in Uganda; that all implementing agencies are good, that fair, well managed institutions, whose interest would be the improvement of the welfare of the scheme beneficiaries; that the rural poor, rural artisans, women, the disabled, that the youth are Uganda's deserving poor; that the Government would have the resources to fund the scheme; and that all the rural poor, rural artisans, women, the disabled, and the youth were known and would have access to the ‘benevolent’ implementing agencies (Balihuta, 1999). The repayment performance of the loans under this scheme and its sister scheme the Youth Entrepreneurship (YES) Credit Scheme was poor as it was perceived to be political grants which should not be paid back (Okurut, Banga, Mukungu, 2004). Secondly, it has been argued that by Government providing subsidised credit, it was polluting the market for microfinance institutions (MFIs) and such credit delivery was not sustainable (ibid).

A Government’s supported credit programmes that exhibited a high level of success was the Poverty Alleviation Project (PAP) that was funded by the African Development Bank (ADB) and Ugandan Government. This programme which was implemented under the Prime Minister's Office channelled funds to the poor through intermediary entities (mainly microfinance institutions (MFIs), NGOs and co-operative credit societies) who were paid a commission for management and recovery of the funds. The PAP project that ran from November 1994 to December 1998 disbursed a total of Ushs 13.5 billion to over 32,000 clients. To ensure continuity of delivery of financial services to the poor, a second five-year phase of the project named Rural Microfinance Support Project (RMSP) was launched on the 24th August 2000. Due to the good performance of the RMSP project, The Government decided to institutionalise this project through the creation of the Microfinance Support Centre Ltd a company limited by guarantee which will continue to wholesale credit to MFIs in a sustainable manner (Okurut, Banga, Mukungu, 2004).

Microfinance institutions in Uganda have created financial products and services that have enabled low-income people who are unable to access formal financial services to access comparatively small loans, saving schemes and other services for working capital and income generation. Some of these small income earners have later graduated to be clients of larger financial intermediaries. MFIs have therefore provided stepping-stones for the poor to access informal and formal financial markets and to use micro finance services to bridge cash gaps in their work systems. MFIs by financing SMEs have made a significant contribution to creation of employment levels and also to household income. SMEs have been reported to provide approximately 90 percent of the employment to school drop-outs, retired and retrenched civil servants, the skilled unemployed, women and army veterans (Okurut, Banga, Mukungu, 2004).

While PEAP policy documents assume that the poor who do not have access to formal financial services will be targeted by the MFIs, the enactment of the Microfinance Deposit taking Institution Act of 2003 [MDI Act (2003)] compelled MFIs to re-think their strategies from quasi-social economic development and humanitarian focus towards stricter commercial orientation and profit making (Okurut, Banga, Mukungu, 2004). The MFIs began targeting only a small proportion of the poor whom they have code named ‘the economically active poor’. The MFIs’ definition of the economically active poor is those that have businesses and the capacity to repay back the loans. From the poverty spectrum, the economically active poor are the richest of the poor just close to the poverty line. This has had serious implications for the poor of the poor (the core poor). The new focus on sustainability as demanded by the MDI Act (2003) has had the effect of motivating MFIs moving towards the non-poor clientele who have more capacity to repay the loans.

Additionally, the poor are not a homogenous group, hence the challenge of MFIs to design appropriate financial products that meet their diverse needs. Currently in Uganda the MFIs are mainly providing generic products with standardised features. The current products features of most MFIs are characterised by short loan periods (on average 4-12 months), no grace periods, weekly repayments and small loan amounts. These product features may not be suitable especially for agriculture related investments, from which the rural poor mainly derive their livelihoods (Okurut, Banga, Mukungu, 2004). A review of microfinance interventions indicates that the critical
issues of deepening the outreach of rural finance services and the development of a strong network of rural financial infrastructures, especially those owned and managed by the people have not been adequately addressed. In addition, the rural people who are mainly engaged in agricultural enterprises have not benefited from the interventions as the financial terms were not suitable for agriculturally-based enterprises (ibid).

To address the persistent rural poverty, the Uganda Government in 2006 initiated the ‘Bonna Bagaggawale’ ‘Prosperity for All (PFA)’ scheme; the concept of ‘Bonna Bagaggawale’ is deeply rooted in the Government’s desire to increase access to credit to the vast majority of Ugandans- the rural poor. This scheme aimed to ensure that every household in the country has a minimum income that enables it to access basic needs: shelter, food, clothing, health, education and decent form of transport (Museveni, 2006). To achieve this, the Government undertook to mobilise, train and generally empower households and communities to use scarce resources such as land to obtain maximum income returns through a sub-county model of economic development. At the heart of this programme are the sub-county level savings and credit cooperative organisations (Saccos).

Despite its noble objectives and desire to address rural poverty the financial arm of this programme, the Saccos seem to be facing serious challenges particularly poor governance as a recent report by the Parliamentary Committee on Finance reveals. According to this report, the Saccos are faced with numerous operational hurdles particularly poor governance. There was political interference that was having a negative impact on operations with politicians misappropriating funds (Kairu, 2010).

Despite all the above efforts, poverty remains the biggest concern of Ugandan citizens as evidenced by a recent report by Afro Barometers. Afro Barometers (2009) for the period between July-October 2008 observed that poverty remained the biggest concern of Ugandans ahead of HIV/AIDS. Trends on some of the assessed indicators showed deepening poverty: for example while 49 percent in 2005 had said that they had gone without water, this had gone up to 55 percent in 2008. In the same poll 73 percent of Ugandans felt The Government had failed to ensure that they had enough to eat (AfroBarometer, 2009).

There is now a growing call both internally from civil society and other pressure groups and from Uganda’s development partners for a re-think of the current anti-poverty strategies as they do not seem to bear the desired goals. With the income inequality increasing from 35 percent to 39 percent the European Union has criticised Uganda’s economic policies and warned of a widening gap between the poor and the rich in the country, as a solution they have called for new ideas to address this problem (Among, 2006). More recently the World Bank Strategy Report 2010 on Africa has challenged Governments like Uganda’s to re-think their current economic policies that have placed greater emphasis on the private sector (The independent, 2010). The World Bank notes that Africa’s private sector growth has not been sufficiently poverty-reducing and it is not clear that it is sustainable. This report observes that most African enterprises are small, with low productivity and are informal. It further observes that formal sector jobs on the other hand have grown at the same rate as GDP in countries such as Uganda but this rate has not been enough to absorb new entrants to the labour force (The Independent, 2010).

Could one possible source of help to this endemic poverty in Uganda be through a better harnessing of the CSR potential on the African continent?

**Definition of Corporate Social Responsibility**

CSR activities that have been undertaken in Uganda both by multinational corporations and local corporations include: the setting up of low cost housing for the destitute, setting up of scholarship schemes for disadvantaged children, providing help lines for causes such as fighting child abuse, and in rural areas providing farm in-puts such as fertilisers, improved seed, agricultural extension services and micro-credit.
Before undertaking an in-depth investigation of a possible role of CSR in addressing poverty in the African situation of Uganda there is need to define this concept. According to the World Business Council for Sustainable Development (WBCSD) Corporate Social Responsibility is defined as “the Commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life (Holmes and Watts, 2000). Baker (2006) defines CSR as: “How companies manage the business processes to produce an overall positive impact on society.”

The definition of CSR however varies from culture to culture as illustrated by the cases cited below. Traditionally, in the USA, CSR has been defined much more in terms of a philanthropy model where companies make profits unhindered except by fulfilling their duty to pay taxes. These companies then donate a certain share of the profits to charitable causes. It is perceived negatively if the company is seen as getting any benefit from the giving (Baker, 2006). The European model of CSR is however much more focused on operating the core business in a socially responsible way, complemented by investment in communities for solid business case reasons (ibid.). In the Philippines, CSR has been defined as, “business giving back to society.” In the African country of Ghana, CSR was defined stressing local community issues such as “building local community capacity” and filling in when government falls short (Holmes and Watts, 2002).” The lesson to draw from these different perspectives of CSR is that when studying this concept in a given a cultural context it is important from the onset that one gets the local definition of this business behaviour.

This paper undertakes to explore the definition of CSR from the perspective of respondents from urban Kampala in Uganda.

3 Methodology

This paper is part of PhD project being undertaken by J.T. that will examine the possible role of CSR in addressing the inter-related problems of poverty and HIV/AIDS in Africa using Uganda as a case-study. The study was undertaken at the Sheraton Kampala Hotel located in the heart of Kampala - Uganda’s capital. Sheraton Kampala is surrounded by a beautiful public garden which the hotel maintains on behalf of the Kampala City Council Authority. These gardens are open to members of the public who can be seen oftentimes resting under its rich canopy of trees. On weekends these gardens are often seen teeming with newlyweds taking their wedding pictures.

For this study the following groups of persons were interviewed: members of the public who were utilising the KCC public gardens (both employed and the un-employed), Sheraton trainee students doing their practical attachments at the hotel and Sheraton’s staff members. These respondents were interviewed using both qualitative and quantitative methodologies.

For this paper we shall report on responses from members of the public utilising the KCC public gardens, Sheraton’s employees, Sheraton’s trainees to two sets of questions / interviews.

The qualitative responses were generated from a semi-structured question, ‘What do you understand by the term socially responsible business?’ The quantitative responses were generated from 12 structured questions derived from the modified questionnaire used in Fox et al’s World Bank Study(2002) carried out in South Africa. The 12 questions are: i) cares about staff; ii) is committed to social activities that benefit the community; iii) has a successful business; iv) complies with the law; v) is fair and loyal to partners; vi) is fair and loyal to competitors; vii) promotes the development of civil society; viii) is fair in dealing with clients; ix) is active in environment protection programmes; x) supports projects with a long term social effect; xi) helps to improve the health and social situation of the disadvantaged; and xii) undertakes projects to eradicate poverty among the disadvantaged. Respondents were required to answer based on a 4 point Likert scale where 1= strongly agree, 2=agree, 3=not sure, 4=disagree.

The questionnaires for this study were administered in both English (for those respondents who were conversant with this language) and Luganda (the predominant local language spoken in central and southern Uganda).
Data from both qualitative and quantitative responses was entered using SPSS. The responses from the semi-structured question were analysed by emergent themes while responses to the 12 structured questions were analysed by factor analysis. Principal component analysis was used and variance method of rotation was applied. A loading of 0.3 was taken as the minimum absolute value to be interpreted. Kaiser’s criterion was used to determine how many factors are retained in the study. Only factors having “Eigen values” greater than 1.0 were considered essential and retained.

4 Results

239 respondents were interviewed for this study (159 males and 80 females), these included: Members of the public utilising the KCC public gardens (MPG) (134), Sheraton’s trainees (ST) (66) and Sheraton’s employees (SE) (39).

Qualitative Data Results

Table 1 shows the main theme emerging from the qualitative data. These were 7 namely: ‘giving back to the community’ (109), ‘treats employees fairly’ (24), ‘undertakes profitable business’ (23), ‘provides local employment’ (19), ‘is fair to its customers’ (6), ‘does not discriminate persons’ (6), and ‘engages in legitimate business’ (5).

Table 1: Main Themes from The Qualitative Data

<table>
<thead>
<tr>
<th>Theme</th>
<th>Numbers reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giving back to the community</td>
<td>109</td>
</tr>
<tr>
<td>Treats employees fairly</td>
<td>24</td>
</tr>
<tr>
<td>Undertakes profitable business</td>
<td>23</td>
</tr>
<tr>
<td>Provides local employment</td>
<td>19</td>
</tr>
<tr>
<td>Is fair to its customers</td>
<td>6</td>
</tr>
<tr>
<td>Does not discriminate persons</td>
<td>6</td>
</tr>
<tr>
<td>Engages in legitimate business</td>
<td>5</td>
</tr>
</tbody>
</table>

Quantitative Data Results

Table 2 provides the factor analysis results which show that there were two components with “Eigen value” greater than 1, these were “giving back to the community” with variance of 36 percent and “legitimacy” with a variance of 18 percent, between these two factors is a cumulative variance of 54 percent.
Table 2: Factor Analysis of Responses to the 12 Structured Questions Describing CSR (Fox et al 2002)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Component</th>
<th>Giving back to the community</th>
<th>Legitimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cares about staff</td>
<td></td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>2. Is committed to social activities that benefit the community</td>
<td></td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>3. Has a successful business</td>
<td></td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>4. Complies with the law</td>
<td></td>
<td>0.61</td>
<td>0.46</td>
</tr>
<tr>
<td>5. Is fair and loyal to partners</td>
<td></td>
<td>0.59</td>
<td>0.48</td>
</tr>
<tr>
<td>6. Is fair and loyal to competitors</td>
<td></td>
<td>0.52</td>
<td>0.43</td>
</tr>
<tr>
<td>7. Promotes the development of civil society</td>
<td></td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td>8. Is fair in dealing with clients</td>
<td></td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>9. Is active in environment protection programmes</td>
<td></td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>10. Supports projects with a long term social effect</td>
<td></td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>11. Helps to improve the health and social situation of the disadvantaged</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Undertakes projects to eradicate poverty among the disadvantaged</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigen Value</td>
<td></td>
<td>4.32</td>
<td>2.16</td>
</tr>
<tr>
<td>% of Variance</td>
<td></td>
<td>36.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Cumulative %</td>
<td></td>
<td>36.0</td>
<td>54.0</td>
</tr>
</tbody>
</table>

5 Discussion

To discuss the results of this paper we shall use Carroll’s CSR Pyramid as a framework for analysis (Figure 1). Carroll’s definition of CSR (as rephrased by Hopkins, 2011) is that: ‘CSR is the social responsibility of business that encompasses the economic, legal, ethical and philanthropic expectations that a society has of organisations at a given point in time’ (Hopkins, 2011). This definition has a number of points that are relevant to this paper. Firstly, it mentions that there are four categories (which in the data I call themes) of expectations namely the economic, legal, ethical and philanthropic (Visser, 2005). This provides a useful starting point for identifying the main ingredients of CSR in the African situation of Uganda. While Carroll defines four categories (see Figure 1) that are applicable to the western culture, are they applicable to the African situation in Uganda? If so, do these four categories have the same relative importance in the African situation of Uganda as they have in Caroll’s western social-cultural context? Secondly, this definition affirms that CSR should be defined according to a given society’s expectations. This is important because different societies struggle with different social problems and hence this definition of CSR allows for the inclusion of the local context in the definition. Thirdly, this definition acknowledges that there is a time element to any definition adopted, this is important because the definition of CSR in a given society may evolve with time and as social circumstances and problems change. For example while HIV/AIDS may have been the number one social problem of Uganda 20 years ago when the
HIV prevalence was about 12 percent and there was no effective antiretroviral therapy, today with the HIV prevalence standing at 6.4 percent in a social context where antiretroviral therapy is now accessible to the vast majority of the population, the number one problem in Uganda today has become poverty (Afro Barometers, 2009).

Carrolls (1991) delineates four categories of CSR which higher education labelled economic, legal, ethical and discretionary (philanthropic) responsibilities. The order and relative weighting of these categories as seen in Figure 1 is described by Caroll for the USA context. But as has been observed by Visser (2005) the ordering of these four categories may be different in non-western cultures. In the South African situation, Visser (2005) obtains a different ordering where: economic responsibilities (first priority), philanthropic responsibilities (second priority), legal responsibilities (third position) and lastly, ethical responsibilities.

Figure 1: The Pyramid of Corporate Social Responsibility (Carroll, 1991)

To discuss the study findings from this paper, we constructed Table 3 which lists the main themes from the data of this study against Caroll’s four categories. The results from this table indicate that the main themes from the qualitative data and the quantitative data fitted very well under Caroll’s four categories. Thus under Caroll’s category of ‘legal responsibilities’ fits ‘engages in legitimate business’ (from the qualitative data) and ‘legitimacy’ (from the quantitative data). Under Caroll’s category of ‘ethical responsibilities’ fits ‘treats employees fairly’, ‘does not discriminate among persons’ and ‘is fair to its customers’ (from the qualitative data). Under Caroll’s ‘economic responsibilities’ category fits ‘undertakes profitable business’ and ‘provides local employment opportunities’ (from the qualitative data). Finally, Caroll’s ‘philanthropic responsibilities’ category fits ‘giving back to the community’ (from both the qualitative and quantitative data).

Table 3: Main Themes from the Qualitative Data as Mapped on Carroll’s Four Factor

<table>
<thead>
<tr>
<th>Carroll’s four Categories</th>
<th>Themes from the qualitative data</th>
<th>Theme from the quantitative data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Responsibilities (5)</td>
<td>Engages in legitimate business (5)</td>
<td>Legitimacy (18%)</td>
</tr>
<tr>
<td>Ethical responsibilities (36)</td>
<td>Treats employees fairly (24)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not discriminate among persons (6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is fair to its customers (6)</td>
<td></td>
</tr>
<tr>
<td>Economic Responsibilities (42)</td>
<td>Undertakes profitable business (23)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides local employment opportunities (19)</td>
<td></td>
</tr>
<tr>
<td>Philanthropic Responsibilities (106)</td>
<td>Giving back to the community (106)</td>
<td>Giving back to the community (36% of the variance)</td>
</tr>
</tbody>
</table>
When a revised Carroll’s pyramid was constructed based on the relative weighting derived from Table 3 (see Figure 2). The ordering of the four main categories changes from that classically reported by Carroll from her observations in the west. In this Ugandan setting, the category with the most relative weight was philanthropic responsibilities, then economic responsibilities, followed by ethical responsibilities and lastly legal responsibilities.

Figure 2: The Revised Pyramid of Corporate Social Responsibility Based on Ugandan Data

**Philanthropic Responsibilities**

Data from the African situation in Uganda indicates that the philanthropic responsibilities category was given the most weight in defining CSR. In this data it was captured as ‘giving back to the community’ (from both the qualitative and quantitative data). Respondents used statements such as those below to describe this responsibility:

‘It is a business that gives back to the community through such programmes as training, sports among others’ a Sheraton’s trainee respondent

‘Paying back to society by doing welfare activities’ a Sheraton’s employee respondent

‘A business that helps the poor and the needy by providing food, shelter, clothing, medicine and education’ a Sheraton’s employee respondent

‘A business that will reach out to the community to alleviate some of the problems’ a members of the public utilising the KCC public gardens

In this study philanthropy was given the highest priority in defining CSR. This is probably because of a number of reasons: As reported by Visser (2005) the socio-economic needs of the African societies in which companies operate are so great that philanthropy is an expected norm. Secondly, Uganda like many other African countries has become reliant on foreign aid; hence there is an ingrained culture of philanthropy. The third reason for the philanthropy prioritisation is that Uganda like the rest of Sub-Saharan Africa is still at an early stage of maturity in CSR where the other categories of stakeholders in CSR such as the shareholders are still largely non-existent and hence a tendency to equate CSR to philanthropy. But in line with the European model of CSR, some respondents made a direct link between giving back to the community and realising economic benefits for the corporation as reported in this quote:

‘CSR is giving back services to the community for economic gain,’ a members of the public utilising the KCC public gardens.

**Economic Responsibilities**

The second most prioritised category in this study was ‘economic responsibilities’. The themes under which this category was reported included ‘undertakes profitable business’ and ‘provides local employment’.

On CSR being described as ‘undertaking profitable business’ respondents had this to say:

‘A business that is active and successful in the way it deals with its clients’ a members of the public utilising the KCC public gardens
Knowledge Management for Industrial Innovation and Development

‘A business that wants profits and serves its clients’ a members of the public utilising the KCC public gardens

‘Setting up a business to get profits and not losses’ a Sheraton’s trainee respondent

The investment environment in Uganda like in most of Sub-Saharan Africa still faces many challenges such as low purchasing power, high eternal debt, a small manufacturing base, poor infrastructure, tight credit and costly capital and being in a regional that is prone to civil conflict, this for many businesses makes it a challenge to remain profitable (United Nations/International Chamber of Commerce, 2001). Respondents were able to make the link between having healthy and profitable businesses and the ability of those businesses to contribute to the social wellbeing of the community.

On the theme ‘provides local employment’ respondents had this to say:

‘A business set up where different people are employed whether semi skilled or skilled’ a Sheraton’s trainee respondent

‘A business that provides employment opportunities’ a Sheraton’s employee respondent

‘A business which employs people from the lowest to the highest profession’ a members of the public utilising the KCC public gardens

Uganda like many Sub-Saharan African countries has a very high unemployment rate, estimated at 32.2 percent among youth in the capital city of Kampala (Uganda Bureau of Statistics, 2010).

High unemployment and poverty are major concerns of most Ugandans, it is not surprising therefore that the economic contribution of corporations was prioritised by the community.

**Ethical Responsibilities**

The third prioritised category was that on ‘ethical responsibilities’. This was derived from the themes of ‘treats employees fairly’, ‘does not discriminate among persons’ and ‘is fair to its customers’.

Respondents had this to say on ‘treats employees fairly’:

‘Provides a clean and organised environment and is fair to its employees’ a Sheraton’s trainee respondent

‘It cares about its staff’ a Sheraton’s trainee respondent

‘A business that cares about its workers’ a members of the public utilising the KCC public gardens

‘A business that pays workers’ a members of the public utilising the KCC public gardens

Respondents had this to say on ‘does not discriminate among persons’:

‘A business that does not segregate people on the basis of tribe, religion or nationality’ a members of the public utilising the KCC public gardens

‘A business that attracts all kinds of people irrespective of their gender, race or physical appearance and benefits the general public’ a members of the public utilising the KCC public gardens

‘A business that recognises people in their capacities and does not discriminate against them’ a members of the public utilising the KCC public gardens

Respondents had this to say on ‘is fair to its customers’:

‘A business that sells its commodities at affordable rates’ a Sheraton’s employee respondent

‘A business that does not exploit customers …’ a members of the public utilising the KCC public gardens

As observed by Crane and Matten (2004) ethical responsibilities are given a higher priority in Europe and America than in Africa. In this study ethical responsibility comes in third after philanthropy and economic responsibility. But as can be seen from the study participants’ responses, the issues of employees and customers being treated fairly by corporations and the issue of non-discrimination are equally important to them.
Legal Responsibility

The category of ‘legal responsibilities’ came in last among the main issues that were selected to define CSR in this study. The theme in this study that covered this responsibility was ‘engages in legitimate business,’ On this theme respondents had this to say:

‘A business that pays taxes’ a members of the public utilising the KCC public gardens

‘A business that is credible’ a members of the public utilising the KCC public gardens

‘A business which is trustworthy to its employees and clients’ a members of the public utilising the KCC public gardens

In this study legal responsibility had low priority in defining CSR as has been noted in the rest of the continent (Visser, 2005). The reasons that have been advanced for this include that in much of Africa the legal infrastructure is poorly developed and often lacks independence, resources and administrative efficiency. Secondly, there is still low awareness about the rights of individuals in relations to businesses.

6 Conclusion

In conclusion, CSR from the Ugandan perspective is perceived predominantly as contributing to address the social problems of society and providing economic benefit mainly in form of employment opportunities. The ethical and legal responsibilities are not yet widely recognised as key components of CSR. Secondly, Carroll’s pyramid of CSR provided a useful framework for analysing the definition of CSR in the African setting of Uganda. In this study just as in Carroll’s original formulation the four categories of philanthropy, economic, ethical and legal responsibilities were relevant for defining CSR in this African setting of Uganda. However unlike in Carroll’s original formulation, these categories were given different weights in the Ugandan situation where philanthropy (was weighted the most) followed by economic, ethical and legal responsibilities in that order.

7 References


knowledge Management for Industrial innovation and Development

Uganda Ministry of Finance, Planning and Economic Development. (2006) Sustaining growth and
achieving deep reductions in poverty: how Uganda recovered after conflict. In Louise Fox
investmentguide/uganda.pdf
waynevisser.com/chapter_wviser_africa_csr-pyramid.pdf
1. Abstract

The purpose of this paper is to highlight key issues required to enforce quality practices in the institutions of higher learning in Kenya. Definition of quality in production of goods and services is based on input – output analysis. It has no end in itself and it consists of synthesis of conformity, adaptability and continuous improvement. The focus of quality is varied depending on the expectation of an individual; a student may focus on the grades in examination, a teacher / trainer may perceive quality in terms of teaching / training facilities, parents may perceive quality in terms of chances of transition from one level to the other while the industry may view quality in terms of competencies portrayed in performance of a task.

This paper explains the key issues in enforcing quality practices so as to meet the expectation of all the key stakeholders in higher education. Quality is defined in terms of curriculum development and implementation, training resources, evaluation / assessment and involvement of the industry at every level. Comparative analysis is done between developing and developed countries. The best practices in quality education and training in African are covered.

An analysis of quality practices in Kenya is covered extensively; the role of Commission of Higher Education (CHE) in enforcing quality assurance the institution of higher learning, Universities Act, the Sessional Paper Number 1 of 2005 on Education and Training, various Education Commissions and The Vision 2030 forms the basis of this paper. In light of this endeavour the development of monitoring, evaluation and benchmark is analysed to assess effectiveness in enforcing quality practices in the universities in Kenya.

There has been a lot of debate about quality education in our higher institutions of learning in Kenya. The main complains has been on the mismatch between the skills produced by training institutions and the needs of the industry. The industry seems to be ahead of the training institutions. The question is “How are we going to move with the industry?”

This paper confirms the use of Stewart and Deming in educational settings and adapts Edward’s conceptual framework. The paper recommends benchmarking, curriculum change often and suggests further research on period of curriculum change and the number of teachers required with growing population to attain Kenya Vision 2030.

Key words: Curriculum, Evaluation, Training, Quality and University
2 Introduction

Quality education in society is one offering safety, sufficiency and satisfaction, Curle (1973). However, society seems to be in transition and men and women are unable to perceive critically themes of their time, and therefore intervene actively in reality as are carried along in the wake of change Freire (1974).

Education in Africa has grown from traditional seven cardinals, to modern and post-modernity concepts. The issues of quality in education range from external and internal. External refers to other people’s views, organisations or legislation, hence are not held personally but persuaded by others. Internally, it stems from personal value belief systems, what one is told to do, the way one approaches the world among other concerns Bottery (2000).

In Africa, quality education is mainly affected by governments and institutions. For governments they are supposed to fund infrastructure, invest in teaching and research, and determine quality and research, also quality of academic environment. Institutions should offer special programmes in conjunction with high quality graduate programmes, enhance quality of the faculty, accelerate some level of autonomy between academic and financial in both public and private education besides encouraging academic freedom. Institutional networking, curriculum reform, institutional culture change and acting the talk are issues of concern, Teferra and Greijn (2010).

3 Background

The word quality comes from the Latin “qualis” meaning what kind of. The quality of something can be said to be a part of its nature. For instance quality products, quality cars and in this sense it is used to convey status and positional advantage. Quality in technical sense is largely a relative concept. The concepts here relate to procedural and transformational. The growth of interest in quality has being:

<table>
<thead>
<tr>
<th>Pre – 1900</th>
<th>Quality as an integral element of craftsmanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900 – 1920</td>
<td>Quality control by foremen</td>
</tr>
<tr>
<td>1920 – 1940</td>
<td>Inspection – based quality control</td>
</tr>
<tr>
<td>1940 – 1960</td>
<td>Statistical process control</td>
</tr>
<tr>
<td>1960 – 1980</td>
<td>Quality assurance / total quality control (the quality department)</td>
</tr>
<tr>
<td>1980 – 1990</td>
<td>Total quality management</td>
</tr>
<tr>
<td>1990 – 2000</td>
<td>TQM, the culture of continuous improvement</td>
</tr>
<tr>
<td>2000 - present</td>
<td>Present organisation-wide quality management</td>
</tr>
</tbody>
</table>

Source: Salnis (2002)

Koech Commission in Kenya (1999), defined higher education in terms of all formal and non-formal education and training offered after the basic education cycle and it comprises further and university level education and training though not limited to teacher training colleges, TVET, all sectorial colleges within the various government ministries, all institutions offering pre-university academic programmes and all the public and privately chartered universities.


Concept of curriculum development involved all the foundations relating to historical foundations, sociological, philosophical foundations and psychological foundations Tanner and Tanner (1980). Models of curriculum development in practice especially in Kenya and other
countries have involved the Tyler Model, Tabas Model, Linear Model, Wheeler Model, Ker Model, Dennis Lawton Model and KIE Model otherwise referred commonly as the Gilbert Oluoch Model.

Shiundu and Omutando (1992) suggest nine (9) processes or stages in curriculum development, that is, situational analysis, formulation of objectives, setting up the curriculum project, programme in selected institution, improving the new programme, implementation, evaluations and maintenance. Eshiwani (1993) identifies quality issues in education involving curriculum, educational wastage, dropouts, supply of teachers, desks, textbooks, library and institutional administration.

In Kenya curriculum change is a matter of concern. Factors that relate to curriculum change include: population increases, enrolment in institutions, technological changes, general increase in new knowledge, unemployment, slow economic development, changes in related curriculum and all the types of change, that is, planned change, random change besides situational change and non-governmental concerns.

Bottery (2000) identifies seven versions of quality from 34 cited from Marrison (1998) which are key in educational settings as:

1. Traditional quality
2. Expert quality
3. Bureaucratic quality
4. “Cold” management quality
5. “Hot” management quality
6. Consumer quality
7. Civic quality

For instance a managerial approach from “cold” to “hot” would be:

**From “cold” management**

1. Quality assurance
2. Targets
3. Outcomes
4. Performance indicators
5. Merit pay
6. Performance management
7. The market
8. The managerial freedom
9. Smaller organisational units
10. Cultural management
11. Total quality management

Bottery Mike (2000) to “hot” management

Modern and post-modernism views on education that determine quality include: modern as institutions instil in individuals, values encourage mainly adaptations, behaviours that are among citizens, society as a paving away for it and there is economic development and natural progress involved.

Post-modernism embraces diverse and ambiguous nature of human contexts, acknowledges and seeks to make explicit the value-laden nature of education but also to explicate the power structures associated with institutions formalisation of values and interests. There is also stress in local context of theory – the adaptation of theory to context rather than context to theory (Kubow and Fossum (2003).

UNESCO (2008) identifies three dimensions of quality education; that is, learning outcomes as measured by international, regional and national assessments in reference to conditions of teaching,
Knowledge Management for Industrial Innovation and Development

instructional time, access to textbooks, safe, healthy and adequate supplied school environment besides quantity and quality of the teaching workforce. It acknowledged challenges of weak pupil performance, widespread learning disparities, insufficient instructional time, high dropout rates in countries both developed and developing, disparities in learning outcomes between girls and boys especially disadvantaged poor, rural-urban slum, marginalised indigenous and minority pupils. However, it reinforced that measures to increase access and improve education quality can be mutually reinforcing, if sufficient teacher salaries are provided to provide a reasonable standard of living, work professionalism and job satisfaction. The quality challenge in most countries has often been on allocating teachers according to the needs of institutions.

4 Theoretical Framework

The study recommends adoption of Walter Stewart and Edwards Deming views on education in Kenya.

Adapted from Sallis Edward (2002)

<table>
<thead>
<tr>
<th>Quality institution</th>
<th>Ordinary institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer focused focus preventing problems</td>
<td>19. Focused on internal needs</td>
</tr>
<tr>
<td>2. Invests in people</td>
<td>20. Focus on detecting problems</td>
</tr>
<tr>
<td>3. Has a strategy for quality</td>
<td>21. Is not systematic in its approach to staff development</td>
</tr>
<tr>
<td>4. Treats complaints as an opportunity to learn</td>
<td>22. Lacks a strategic quality vision</td>
</tr>
<tr>
<td>5. Has defined the quality</td>
<td>23. Treats complaints as a nuisance</td>
</tr>
<tr>
<td>6. Characteristics for all areas of the organisation</td>
<td>24. Is vague about quality standards</td>
</tr>
<tr>
<td>7. Has a quality policy and plan</td>
<td>25. Has no quality plan</td>
</tr>
<tr>
<td>8. Senior management is leading quality</td>
<td>26. The management role is seen as one of control</td>
</tr>
<tr>
<td>9. The improvement process involves everybody</td>
<td>27. Only the management team is involved</td>
</tr>
<tr>
<td>10. A quality facilitator leads to the improvement process</td>
<td>28. There is not Quality Facilitator</td>
</tr>
<tr>
<td>11. People are seen to create quality – creativity is encouraged</td>
<td>29. Procedures and rules are all important</td>
</tr>
<tr>
<td>12. Is clear about roles and responsibilities</td>
<td>30. Is vague about roles and responsibilities</td>
</tr>
<tr>
<td>13. Has clear evaluation strategies</td>
<td>31. Has no systematic evaluation strategy</td>
</tr>
<tr>
<td>14. Sees quality as a means to improve customer satisfaction</td>
<td>32. Sees quality as a means to cut costs</td>
</tr>
<tr>
<td>15. Plans long term</td>
<td>33. Plans short term</td>
</tr>
<tr>
<td>16. Quality is seen as part of the culture</td>
<td>34. Quality is seen as another and troublesome initiative</td>
</tr>
<tr>
<td>17. Is developing quality in line with its own strategic imperatives</td>
<td>35. Is examining quality to meet the demands of external agencies</td>
</tr>
<tr>
<td>18. Has a distinctive mission</td>
<td>36. Has no distinctive mission</td>
</tr>
</tbody>
</table>

Adapted from Sallis Edward (2002).
Quality Assurance in Developed Countries – Europe and China

In most of the countries in Europe, quality assurance in the higher level of education is done by Higher Education Institutions. This is done through development of two systems to deal with internal quality assurance and external quality assurance. The external quality assurance performs the following tasks:

1. First, evaluate quality of programmes or courses being offered by the institutions of higher learning. This is done by auditing the programmes and the capacity of the institutions in offering such courses.
2. Secondly, the compare quality of training areas and discipline offered by different institutions. This is done through benchmarking of the training areas and discipline.
3. Third, the guarantee pre-defined standards of quality by institutions. This is done by accrediting institutions to offer training and also accrediting courses to be offered.
4. Forth, the award various seals designed to signal high quality of excellence in training and courses offered. Institutions and programmes are vetted before such seals are given (Report from the Commission to the Council, the European particularly Brussels, 2009).

State of Quality Assurance in Africa

Most of the African countries quality in Higher Education is becoming priority in national planning. Higher Education has become a strategy used to achieve national goals and economic development. The expansion of institutions of higher learning is creating a challenge in producing high calibre of workforce and also in creating value to consumers of higher education services.

Competition in the education sector is also another reason why quality assurance is getting a lot of support. Each institution is trying to create competitive advantage through quality, in support of this the World Bank Working Paper No. 124 identify some driving forces of quality in higher education as increasing demand for accountability, by government, other founders and the public and the desire by institutions to be comparable with the best institutions within the country and with international institutions.

Quality assurance systems in African countries are relatively yawning with majority of the countries establishing theirs within the last ten years. Currently approximately sixteen countries have established functional Quality Assurance agencies. The main reason for establishing Quality Assurance in most of the African countries was aggravated by expansion of private universities and institutions of higher learning. Quality Assurance in most of the African countries has been geared towards regulating the development of the institutions of higher learning.

According to the World Bank Report (2007) listed seven African countries that have already realigned their quality assurance agencies to supervise both public and private institutions of higher educations. These countries are Ethiopia, Ghana, Mauritius, Nigeria, South Africa, Tanzania and Uganda.

Various scholars have discussed different approaches of quality assurance practices. However, the common type of quality assurance practices commonly applied include: institutions audits, institutional accreditation and programme accreditation. This approach common in African countries is also a model which is similar in developed countries.

Internal quality assurance institutions of higher learning have also established Internal Quality Assurance mechanism. The commonly used internal quality assurance mechanism include: use of external examinations, self-evaluation system and academic audits. Some of the universities have also introduced performance contracting as tool to measure performance of staff in the university.

Quality Assurance in Kenya

Higher Education in Kenya is managed through Education Act and Universities Act. The Education Act Chapter 211 empowers to manage, register, promote, and inspect education. In this contest the
Minister for Education is empowered to ensure quality assurance is maintained in the institutions. The education empowers the minister to appoint officers at anytime, with or without notice, and inspect, audit and advise the manager of the school on the maintenance of accounting records (The Education Act.

In this regard, the Ministry of Education has established a directorate of Quality Assurance to monitor quality assurance in all learning institutions in Kenya. The officers from this directorate operates at the three levels, headquarter where policy on quality is developed before passing the same to the lower levels of administration; at the provincial they coordinate quality assurance systems at the district level.

The district quality assurance manages quality assurance systems at the lower level – both at the primary schools, secondary schools and teacher training institutions. In addition to the quality assurance mechanism of system at each level, there is an oversight board. The Provincial Education Board coordinates education matters at the province, while District Education Board coordinates education at the district level. Education officers set in these boards and play key role in advising the board (Ministry of Education, Science and Technology).

**Quality Assurance in Higher Education in Kenya**


Quality Assurance system is currently mandated to the two institutions namely: Commission for Higher Education and Directorate of Technical Accreditation and Quality assurance.

According to the **Universities Act of 1985, No.5 (1985)** the functions of Commission for Higher Education include:

1. To promote the objectives on universities education namely development, processing, storage and dissemination of knowledge for benefit of mankind.
2. To advise the ministers on the establishment of public universities
3. To accredit universities.
4. To coordinate long – term planning, staff development, scholarship and physical development of university education.
5. To promote national unity and identity in universities.
6. To liaise with government departments and the public and private sectors of the economic in matters relating to overall national manpower development and requirements.
7. To cooperate with government in planned development of university education.
8. To examine and approve content to be offered by the private universities in Kenya.
9. To receive and consider applications from persons seeking to establish private universities in Kenya and make recommendations thereon to the minister.
10. To make regulations in respect of admission of persons seeking to enrol in universities and provide a central admission service to public universities.
11. To ensure maintenance of standards for courses of study and examinations in the universities.
12. To advise the Government on the standardisation, recognition and equation of degrees, diplomas and certificates conferred or awarded by foreign ad private universities.
13. To coordinate education and training courses offered in post secondary school institutions for purposes of higher education and university admission.

14. Arrange for regular visitations and inspections of private universities.

It is important to note that higher percentage of function of CHE is on regulation and small percentage is quality management. Similarly the functions of overseeing quality assurance in the public universities are also missing. This therefore has made various public universities develop their own internal quality assurance mechanism.

**Quality Assurance in TIVET Sector**

The Directorate, Technical Accreditation and Quality Assurance was established to coordinate:

1. Development, maintenance and coordination of training standards in TIVET.
2. Coordination and supervision of TIVET training programmes.
3. Initiating curriculum development and review for TIVET training programmes.
4. Ensuring quality in development and implementation of TIVET training institution curricula.
5. Coordinating and promotion of TIVET training institutions co-curricular activities.
6. Assessment of TIVET training institutions for purpose f registration (accreditation) and quality assurance.
7. Coordinating and facilitating of in-service training programmes for technical teachers and managers of TIVET institutions.
8. Setting standards for evaluation and approval of training materials and text books for TIVET programmes.
9. Equating TIVET institutions certificate offered by various examining bodies.
10. Developing specifications for training equipment, classroom, workshops, laboratories and libraries and students’ enrolment guidelines.
11. Developing management guidelines for TIVET institutions.
12. Formulating and implementing credit transfer.
13. Setting admission criteria for students joining TIVET programmes.

Similarly, Directorate of Technical Accreditation and Quality Assurance (DTAQA) devote high percentage of its mandate to regulate activities and policy development. This therefore, means that quality assurance function which is an external service and critical is compromised. In developed countries, there is clear distinction between the functions of a Quality Assurance agency and the functions performed by a body which develops policy issues on guidelines.

The Directorate of Technical Accreditation and Quality Assurance operate at the national level at the moment. The total number of registered institutions at the moment is approximately five hundred and twenty in addition; most of the ministries and government departments run training institution offering TIVET programmes. This therefore, means that Quality Assurance which is a critical component in training is not appropriately carried out and therefore, compromise quality of outcomes. (MOHEST, 2008).

5 Conclusion and Recommendation

Kenya has a lot of ground to cover in quality management both at the university level and at the TIVET level. All organisations whether public or private are faced with increasing competition and the public institution are facing increasing demand for accountability and transparency. To meet this increase demands new techniques have to be put in place.

In keeping with Sessional Paper No. 1 of 2005, the Government was to develop and implement a monitoring and evaluation system to enhance quality assurance by setting quality standards, besides in Sessional Paper No. 5 of 2005 reconstruction of education programmes was to be in line with gender equality and development.
6 Suggestions and Further Research

It is suggested that government in higher institutions adapts a strong leadership, management and commitment to establish and maintain quality standards, highly trained staff who can recognise opportunities offered by technological innovations, tackle resistance to change, proper use of scarce resources, partner with other institutions in region or overseas and put in place quality assurance mechanisms to monitor and evaluate whether, and if so to what extent innovative approaches to teaching, learning and enhanced capacities actually generate improved learning outcomes (Teferra and Greijn, 2010). This is important, since international issues on quality education relate to purpose of schooling, educational access and opportunity, educational accountability and authority and teacher professionalism (Kubow and Fossum, 2003).

Further research is encouraged on periodical time to change the curriculum of various institutions of higher learning to enhance quality outcomes and how recruitment of 28 000 teachers in Kenya Vision 2030 will enhance education and training so as quality of education is maintained.

7 References


ICT Adoption and Growth of Small Enterprises: A Study of Kisumu City

Ogalo, James Ochieng (PhD) and Asaka, Charles Nyangara – (The Kenya Institute of Management, Kenya)

1 Abstract

Purpose
In the current dynamic business world, ICT offers an option for developing and improving products/service so as to achieve a competitive edge in the market. Technology is no longer an afterthought in forming business strategy, but the actual cause and driver. Therefore the need for development of an efficient and effective computer-based information system is of utmost priority if survival and growth of the enterprises is to be realised. However, there seem to be inherent challenges in its adoption and utility in developing economies. This study examines the relationship between these inherent challenges in ICT adoption and the performance of small enterprises in Kisumu City in order to explore policy options for the growth of these enterprises.

Study Design
The study adopted the use of survey research design. The target population in this study consisted of 481 of the small enterprises in Kisumu City. A sample size of 144 was obtained for the survey. Questionnaires and interviews were the main tools used to collect data. Chi-square test ($\chi^2$), a statistical technique, was used to test the association between ICT adoption and small business performance.

Findings
ICT forms an essential ingredient for the success of the organisation. However, the Government of Kenya should formulate solid policies and procedures that focus on the accessibility, security and use of ICT by small enterprises in order to reap the benefits of ICT adoption.

Practical Implications
The study ought to provide expected policies and guidelines which will be useful in improving the successful adoption of ICT in order to improve business performance.

2 Introduction
In today’s information intensive environment, the creative combination of information and people can be a powerful force in achieving superior performance. High performance organisations that attain or exceed challenging goals, satisfy and expand established markets (or develop important new ones), and create superb value for owners, employees, and customers are likely to employ talented, motivated workers supported by well-developed information systems. The leverage of information and people is so powerful that managers in high performance organisations devote considerable energy to manage information, its delivery system, the people who deliver it, and those who use it. The combination of skilled people and advanced IT has revolutionised business and commerce and altered the concept of management (Frenzel and Frenzel, 2004). Therefore the management concerns are to find application of technology to automate the flow of information in an organisation’s information system.
The term Information Technology (IT) and Information Communication Technology (ICT) are used interchangeably and, according to Beckinsale and Ram (2006), ICT is defined as any technology used to support information gathering, processing, distribution and use. This covers all forms of technologies such as computers, Internet, websites as well as fixed-line telephones, mobile phones and other wireless communications devices, networks, broadband and various specialised devices (Manueli, Latu and Koh, 2007). ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. For example, personal computers, digital television, email, robots. Importantly, it is also concerned with the way these different uses can work with each other. ICT therefore, is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. It is an ingredient which when used accelerates business performance.

This study proposes that all business enterprises require new operational techniques to match the learning and innovational needs to maintain customer dynamism and quest for high quality products/services that satisfy those needs. To manage this dilemma in a business enterprise, information and communication become an essential ingredient for the survival and growth of a business on a day today endeavours. This requires systems to provide information and communicate them effectively in a business entity. ICT and information systems facilitate and improve the processing and dissemination of information to various users in the organisation.

From the economic point of view, IT changes both relative costs of capital and the costs of information. Information system technology can be viewed as a factor of production that can be substituted for traditional capital labour. As the cost of IT decreases, it is substituted for labour, which historically has been a rising cost (Laudon and Laudon, 2006).

3 Statement of the Problem

Technology is no longer an afterthought in forming business strategy, but the actual cause and driver (Kalakota et al, 1999). Melymuka and Kathleen (1999) have noted that IT is the bloodstream that feeds the business process. IT penetrates more deeply into all business processes and helps to create many new businesses Therefore the need for development of an efficient and effective computer based information system is of utmost priority if survival and growth of the enterprise is to be realised. Despite the adoption of ICT systems by small enterprises, there seem to be inherent challenges in its adoption and utility towards enterprise growth. In as much as several studies have been conducted in other parts of the world, there is little research conducted in this area in Kenya and more so in Kisumu. Therefore, this study examines if there is a relationship between these inherent challenges in ICT adoption and performance of small enterprises in Kisumu City.

The Objective of the Study

The general objective of this study was to examine the relationship between information communication technology adoption and performance of small enterprises in Kisumu city.

This following specific objectives:
1. To find out the number of SEs that have adopted ICT in their businesses.
2. To identify the level of ICT adoption by small enterprises in Kisumu city.
3. To establish the relationship between ICT adoption and SEs performance in Kisumu city.
4. The Research Questions
5. How many Small Enterprises have adopted the use of ICT in their businesses in Kisumu city?
6. What is the level of ICT adoption by the small enterprises in Kisumu city?
7. What is the relationship between ICT adoption and SEs performance in Kisumu city?
Justification of the Study

The study is to provide expected policies and guidelines which will be useful in improving the successful adoption of ICT in order to improve the entire business performance. The decision makers such as business proprietors, managers, local authorities and government policy makers will also find the study useful because it will identify hiccups in ICT adoption. This will enable them to come up with policies that will guide the process of policy implementation.

Scope of the Study

The study was concerned with the relationship between ICT adoption and performance of small enterprises. The study was geographically confined to Kisumu city which is situated in Nyanza province. The study was conducted using survey design. According to Williams et al (2002) a small business is defined as one that is independently owned and operated, is not dominant in its field of operation, and meets certain standards of size in terms of employees or annual receipts. In this study it is defined as a business entity with employees numbered between (five) 5 to (twenty) 20 (Kibas, 2005).

4 Review of Literature

Introduction

ICT adoption offers the alternative choice between success or failure of an organisation in today’s highly competitive and technological business world. The use and integration of ICT into the business mainstream, has revolutionised and changed the business dimension. As noted by Curtis and Cobham (2008), the impact of IT has reshaped the types of work involved within organisations. Frequently those with skills for previous jobs do not have the skills appropriate for the new technology. Many organisations have developed policies to provide the retraining necessary to enable employees to move internally.

The growth of information and communication technologies has exploded in recent years, considering that the number of subscribers to mobile phone services surpassed the number of fixed-line subscribers in 2002, and cellular has become the dominant technology for voice communications (International Telecommunication Union, 2004). Internet browsing by a mobile phone is also growing throughout the world as cell phone penetration increases.

The growth of wireless voice communications and their increasing integration with internet technologies generates opportunities for further innovations and applications. For example, location-based wireless technologies already aid police and parents in protecting children from kidnapping and other crimes. Multimedia messaging services (MMS) and streaming mobile video raise exciting possibilities for more person-to-person services and even personalised entertainment (Ferrell et al, 2008). Further, companies need a strategic framework that can bridge the gap between simply connecting to the internet and harnessing the power for competitive advantage. The most valuable internet applications allow companies to transcend communication barriers and establish connections that will enhance productivity, stimulate innovative development, and improve customer relations (Cronin and Mary 1996).

SME usage of ICT ranges from basic technology such as radio and fixed lines to more advanced technology such as email, e-commerce, and information processing systems. These are further categorised as:

1. Basic Communications including fixed line/mobile, phone, and fax.
2. Basic IT which is specified as Personal Computer (PC) equipped with basic software and hardware (for instance, PC with proprietary and/or free and open-source software connected to a printer.
3. Advanced Communications including E-mail, Internet browsing, video conferencing.
intranet, file sharing, creating websites, e-commerce, Voice over Internet Protocol and
4. Advanced IT with advanced software such as databases, Enterprise Resource Planning, Inventory Management, Customer Relationship Management.
5. Using advanced ICT to improve business processes falls into the category of e-business. However, not all SMEs need to use ICT to the same degree of complexity. The first ICT tool that most SMEs adopt is having basic communications with a fixed line or mobile phone, whichever is more economical or most convenient for their business. This allows the SME to communicate with its suppliers and customers without having to pay a personal visit. After acquiring basic communication capabilities, the next ICT upgrade is usually a PC with basic software. Even without Internet connectivity, SMEs can use PCs for basic word processing, accounting, and other business practices. With the Internet, SMEs are able to use more advanced communications capabilities such as email, file sharing, creating websites, and e-commerce. This may be sufficient for most SMEs, especially those in service industries such as tourism. SMEs in manufacturing may adopt more complex IT tools such as ERP software or inventory management software. SMEs may adopt the tools progressively or jump immediately to advanced ICT capabilities.

**ICT in Kenya**

In an effort to place economic recovery strategy for wealth and employment creation the Government of Kenya has opted to fully utilise the undersea cable, thus rolling out the terrestrial fibre optic cable covering 5,500km throughout the country connecting all the major towns under the national optic fibre backhaul infrastructure (NOFBI) project. The NOFBI project will cost the Government approximately Kshs. 4.5B. Both the teams and NOFBI projects were expected to be operational by September 2009. Approximately 1000 km have been laid with optic cable under the NOFBI (ERS, 2003 – 2007).

The Government has also established universal access fund to subsidise the provision of services of ICT services to the marginalised areas where it is unprofitable for services to be offered commercially. The Government also lowered and/or abolished taxes on ICT equipments and services. This has enabled many Kenyans to acquire ICT equipment at low costs (ERS, 2003 - 2007). In regard to the standardisation of information training the Government through the Ministry of Information, embarked on review of curriculum under the Kenya Institute of Mass Communication and has developed new curricular which have taken into account the changing ICT environment. Other institutions are expected to do the same before a standardized programme is established. ICT can be used to develop new products/services, processes or to improve existing products/services and processes so as to achieve a competitive edge in the market or to improve internal operations.

Further, the Government launched the National ICT Policy in 2006 with a major objective of making Kenya an ICT hub and a premier location for business process outsourcing and the ICT board to oversee the development of ICT services in Kenya. In the same year the Government started the process of constructing a submarine and terrestrial fibre optic cable networks that would connect the country with the rest of the world. This will cut the communication costs by half. Telkom Kenya, the national telecommunication provider initiated the construction of the Mombasa-Nairobi-Malaba inland optic fibre which will connect the country to Uganda.

In addition, the Government constituted several committees to enhance and promote e-government. Sensitisation campaigns on e-government strategy were initiated and are still ongoing in ministries and Government departments at both the central and devolved levels.

**Role ICT Adoption in Firm Performance**

The effective implementation of IT would result in decrease in liability by cost reduction and further reduces the risk of business failure and increase flexibility by reducing the cost of adjustment. The
capabilities and flexibilities of computer-communication systems make them a perfect choice to appropriately respond to businesses dilemma thus improving effectiveness and efficiency in the enterprise.

ICT encourages flexible job design and employee involvement. A key objective of HRM policies is to get employees more involved in their jobs. Freeman, et al (2000) argue that many American firms use HRM policies such as self-directed teams, quality circles, profit sharing, and diverse other programmes, to involve employees in their jobs. HRM practices such as teamwork and job rotation seem to raise skill demands primarily for behavioural and interpersonal skills such as the ability to get along with others and work in teams (Cappelli and Neumark, 1999).

ICT is playing a key role in the growth of customer relations management (CRM) practices. For example, to communicate with clients, sales forces in the field are supplemented by interactive web sites and call centres. In addition, advanced database technology, world wide web integration, sales force automation and multi-media-based front office applications are emerging as key elements of CRM. Evidence from surveys of managers and case study literature shows that the most important reasons for investing in ICT are product quality improvements, especially customer service, timeliness, and convenience (Bresnahan et al., 2002).

IT is having impact on all sectors industries and businesses, in service as well as in manufacturing. The advancement in IT results in remarkable decline in the costs of synchronisation and enables the business to respond to competitive forces by providing new ways of proactively and reactively deal with situational problem facing business entity. It is unquestionable that the effects of the development, spread, and use of ICT go much further than changing the industrial composition of developed economies. ICT is playing an increasing role in economic growth, capital investments, and other aspects of the macro economy (Brynjolfson & Kahin, 2000). The adoption of ICT allows for a reduction of transaction costs and leads possibly to more efficient markets (Malone, Yates & Benjamin, 1987; Lee & Clark, 1997).

The achievement of perennial dream of the expansion of business entity into global markets has been made possible by the use of ICT. Indeed ICT has played a crucial role in the race towards globalisation (Kalakota et al, 1997). In the new millennium, the web and e-commerce are key industry drivers. It has changed how many companies do business. It is created new channels for our customers; making leaders in many different industries sit up and take notice.

Divergent Views

However, there seems to be substantial disagreement about the form of ICT impact and researchers in the field seem to use one of two major approaches (Smith, 2002). The first approach argues that economic growth is driven by the emergence of new sectors embodying new technologies including the ICT-producing sectors themselves. In this case growth comes from two sources: (i) new sectors exhibit higher growth rates of value addition, productivity and incomes and will thus function as a source of growth for the whole economy, and (ii) new sectors change the conditions of other sectors of the economy by changing relative prices, and by providing a new set of inputs that raise productivity either by the introduction of new or improved products or new production methods. The production of ICT and the emergence of new ICT-based industries therefore contribute directly to increased GDP and to boost aggregate productivity.

The second approach argues that, since ICT represents a special type of capital good, increased investments in ICT by companies and governments will raise labour and total factor productivity. Investments in ICT complement or replace investments in other capital goods and increase the capacity of the production of ICT-using sectors and industries. Nevertheless, Baldwin and Sabourin (2002) argue that simply purchasing advanced technologies does not necessarily lead to success. Firm performance critically depends on how these technologies are implemented. Successful implementation of these technologies requires a human resource strategy to develop the necessary worker skills. It requires that firms overcome financing problems associated with acquiring new and
Knowledge Management for Industrial Innovation and Development

untried technologies. And, it requires innovation accompanied by the development of best practices in quality control and engineering.

There is, however, a general agreement that the use of IT in business operation improves business quality through continuous improvement. With regard to the impact on the production process as a whole, the use of ICT improves the competitiveness of firms making it possible for them to increase their market share by becoming leaner than their competitors. The use of ICT also helps firms to expand their product ranges, customise the services they offer and/or respond better and quicker to customer demand. The use of ICT also makes it much easier for firms to outsource and even offshore many of its activities and instead concentrating on its core business and core competence (Cohen, Garibaldi & Scarpetta, 2004, Pegels and Carl, 1995).

5 Methodological Approach

The Study Area

The study was conducted in the CBD of Kisumu City which is the headquarters of Nyanza Province, in the western part of Kenya. It is the third largest City in Kenya. Kisumu is located at Lake Victoria port of Kenya and the second most important town after Kampala within the lake region. It is known for being an economic hub for most trade conducted in the East Africa region. Kisumu city core-urban stands at 131,062 people (Kenya National Bureau of statistics, Kenya Population Census, 2009).

Research Design

This study was conducted through a survey research design. A survey design is an attempt to collect data from members of a population with respect to one or more variables and it is also an excellent vehicle for the measurement of characteristics of large population (Mugenda and Mugenda, 2003).

Target Population

The target population in this study consisted of 480 of small enterprises in Kisumu City Central Business District. The population was drawn from the sample list from the Municipal Council of Kisumu (MCK) integrated information system (MCK integrated information system, 2010). Since the small and medium enterprises are viewed as potential drivers of the economy of a growing nation, the small enterprises became appropriate candidates and a focal point for the study of ICT impact on business growth. Kothari (2007) defined target population as the total of items about which information is desired. The small enterprises according to the study are enterprises with employees between 5 and 20.

Sample Size and Sampling Technique

The sample in this study consisted of 144 small enterprises as respondents selected from the target population of 481. Neuman, (2000) defines a sample as a set of individual selected from the target population in a research study; it is used in research to enable a detailed study to be carried out on a few members of larger population, but with an intention of generalising the results of the investigation to the entire parent population (Oso and Onen, 2008). In the study a sample of small enterprises was selected, which represented 30.01% of the target population. The sample size was determined according to Yamane (1967:886) formula for sample size determination. A stratified sampling procedure was performed on the sample population. The entire population was grouped into two strata namely Zone seven (7) and Zone eight (8) as illustrated in the table below:
Purposive sampling technique was further used to select 5 directors of small enterprises for in-depth interviews. The informants were selected at the researchers discretion based on general set up of the ICT usage in order to shed light on a range of issues of interest to the study.

**Data Collection Methods**

Open and closed ended questionnaires and interviews were the main tools used to collect data. Questionnaires and interviews were used extensively to collect data and are seen as efficient ways of gathering data from samples representing large populations (Kim, 2009). The selection of the use of questionnaires and interview were necessitated by the nature of data to be collected, type, nature of respondents and the objectives of the study. The researchers’ main concern was to collect views, opinions, perceptions, feelings and attitudes. This made the researcher balance between quality and quantity of data collected, and to further enable the collection of focused information and detailed qualitative information for balanced and detailed explanation of the phenomenon under investigation.

**Data Analysis Method**

The data collected were coded, tabulated and analysed using descriptive analysis for measures of central tendency and inferential analysis method to draw conclusions concerning relationships and differences found in the research results.

Chi-square test ($\chi^2$), a statistical technique was used to compare and as a test of dependence. The chi-square test enables the researcher to explain whether or not two attributes are associated (Kothari, 2008).

**6 Study Findings**

This study assessed and analysed the findings in terms of four (4) categories of the adoption of ICT level namely: Basic communication category, Basic Information Communication Technology category, Advanced Communication Category and Advanced Information Communication Technology category. The level of adoption and the number of small enterprises in each category are presented below:

<table>
<thead>
<tr>
<th>Level of adoption</th>
<th>No. of enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic communication</td>
<td>144 (100%)</td>
</tr>
<tr>
<td>Basic Information Communication Technology</td>
<td>138 (96%)</td>
</tr>
<tr>
<td>Advanced communication</td>
<td>97 (67%)</td>
</tr>
<tr>
<td>Advanced Information Communication Technology</td>
<td>88 (61%)</td>
</tr>
</tbody>
</table>
Level of Adoption

From the table and figure above, all the small enterprise firms (144(100%)) used basic communication as a means of communicating reports and transactional requirements.

ICT Adoption by Category

Basic Communication.

The level of adoption of ICT was analysed according to the elements of basic communication. The results were presented in the table below:

<table>
<thead>
<tr>
<th>Elements of Basic Communication</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed line</td>
<td>106 (74%)</td>
</tr>
<tr>
<td>Mobile</td>
<td>144 (100%)</td>
</tr>
<tr>
<td>Fax (facsimile)</td>
<td>43 (30%)</td>
</tr>
</tbody>
</table>

The findings show that all small enterprises (respondents) use mobile phones (i.e. 144 representing 100%) as a way of communication. Fixed telephone lines and fax (facsimile) were used by 106 (74%) and 43 (30%) of the firms respectively. Mobile phones were most popular probably because being able to buy and sell goods and services over mobile devices is an important step toward achieving the anywhere – any time paradigm. It does not constrain organisations from completing their operations due to geographical dispensation, time and telecommunication infrastructure limitations.

Basic Information Technology

This category had 138 respondents representing 96% of the total number of respondents sampled for the study.

The study shows that all of the small enterprises have personal computers (PCs) equipped with basic standard software (Msoffice suite, Word processing, Spreadsheet, Accounting, Publishing and other standard software).

<table>
<thead>
<tr>
<th>Elements of Information Technology</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Msoffice suite software</td>
<td>138 (100%)</td>
</tr>
<tr>
<td>Word processing (WordPerfect, WordStar etc)</td>
<td>6 (4%)</td>
</tr>
</tbody>
</table>
The findings results shows that of the 138 respondents under this category (Basic information technology), all had installed Msoffice Suite software, 82 (59%) had publishing software and 3 (2%) of them own spreadsheet software. 103 (75%) had installed an accounting software and only 67 (49%) operate other standard application software installed in their system.

**Advanced Communication**

The number of respondents in this category were 97, representing 67% of the total number of respondents sampled for the study.

<table>
<thead>
<tr>
<th>Elements of Advanced Communication</th>
<th>No. of respondents n=97</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail</td>
<td>97 (100%)</td>
</tr>
<tr>
<td>Internet Browsing</td>
<td>74 (76%)</td>
</tr>
<tr>
<td>Video Conferencing</td>
<td>15 (15%)</td>
</tr>
<tr>
<td>Intranet</td>
<td>20 (21%)</td>
</tr>
<tr>
<td>File sharing</td>
<td>43 (44%)</td>
</tr>
<tr>
<td>Creating Websites</td>
<td>17 (18%)</td>
</tr>
<tr>
<td>E-commerce</td>
<td>11 (11%)</td>
</tr>
<tr>
<td>Voice Over Internet Protocol</td>
<td>3 (3%)</td>
</tr>
</tbody>
</table>

Results in table shows that all of the small enterprises under category 3 used E-mail and 74 (76%) used internet Browsing while 43 (44%) used file sharing to conduct business transaction and communication. A few small enterprises utilised superior communication elements such as video conferencing 15 (15%), intranet 20 (21%), creating websites 17 (18%), E-commerce 11 (11%) and voice over internet protocol 3 (3%). Notably e-mail, internet browsing and file sharing were most used by firms in this category. The high response of 100% and 76% of the respondents reported to be using e-mail and internet browsing reveals that almost all enterprises utilise the information from the internet to generate various solutions to organisation problems and to communicate to various stakeholders like customers and suppliers for speedy feedback and communication of business information.

**Advanced Information Communication Technology**

Of the respondents, 88 (61%) had embraced Advanced level of Information Communication Technology. Levels in this category are presented below:
An overwhelming majority of respondents in this category (85 (97%) and 79 (90%)) reported that they currently used Database management system and other in house developed software respectively. The minority of the group which comprises of 3 (3%), 21 (24%) and 3 (3%) used Enterprise Resource Planning, Inventory Management Software and Customer Relationship Management respectively. From the results above the most popularly used software under this category were database management systems and other in-house developed software. This may be due to popularity and the commonality of these programmes. These information systems can be easily tailored to meet the firms’ requirement and they form the basic step in managing enterprise resource allocations and activities. There exists variation of the commonly used information system. The complexity of managing and modelling all activities to conform or to run under enterprise resource planning systems and customer relation management make them unpopular with the small enterprises.

**Relationship between ICT Adoption Level and Business Performance**

The respondents were asked to rate the effects of ICT adoption on the performance of the business. Responses were received in various ICT adoption categories.

<table>
<thead>
<tr>
<th>ICT adoption level Category</th>
<th>Rate of Business performance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V. High</td>
<td>High</td>
</tr>
<tr>
<td>Basic communication n= 144</td>
<td>37 (26%)</td>
<td>72 (50%)</td>
</tr>
<tr>
<td>Basic Information Communication Technology n =138</td>
<td>21 (15%)</td>
<td>63 (46%)</td>
</tr>
<tr>
<td>Advanced communication n=97</td>
<td>27 (28%)</td>
<td>59 (61%)</td>
</tr>
<tr>
<td>Advanced Information Communication Technology n =88</td>
<td>19 (22%)</td>
<td>44 (50%)</td>
</tr>
</tbody>
</table>

Under category one, 37 (26%), 72 (50%), 29 (20%), 4 (3%) and 2 (1%) rated the business growth as very high, high, moderate, very low and low respectively. In the category of basic IT respondents of 21 (15%), 63 (46%) and 45 (33%) rated the business performance as very high, high and moderate respectively. In the advanced communication category which consisted of 97 respondents, 27 (28%) and 59 (61%) of the enterprises rated the business performance as very high and high respectively. And the rest of the enterprises which comprises of 10 (10%), 1 (1%) and 0(0%), indicated moderate, low and very low for business growth respectively. Respondents in the advanced information communication technology category with respondents of 88, 19 (22%) and 17 (19%) indicated very high, high and moderate business performance respectively, while the rest which constitutes 5
(6%) and 3 (3%) conforms for low and very low of business growth respectively. This was further illustrated in the figure below:

![Relationship between ICT Adoption and Business Growth](image)

**Relationship between ICT Adoption and Business Growth**

Hypothesis testing was further used to seek the association between ICT adoption level and business performance. This tested the given null hypotheses that:

- **H0**: There is no significance relationship between ICT adoption level and business performance.
- **H1**: There is significance relationship between ICT adoption level and business performance.

The chi square results revealed that there was statistically significant association between ICT adoption level and business performance at level 0.05 ($\chi^2 = 27.22; df = 9; p= 0.05$) and the $\chi^2$ critical value at 0.05 is equal to 16.919. The values fall in the accepted region, therefore, we reject $H_0$ and accept $H_1$. This confirms that ICT adoption level is highly associated with business performance.

**ICT Adoption Rate**

The study sought to assess the attitudes of the respondents on the rate at which ICT was being adopted in small enterprises. The results were presented in the table and pie chart below:

**ICT Adoption Rate**

<table>
<thead>
<tr>
<th>Adoption Rate</th>
<th>No. of respondents n=144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Fast</td>
<td>25 (17%)</td>
</tr>
<tr>
<td>Fast</td>
<td>67 (47%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>35 (24%)</td>
</tr>
<tr>
<td>Slow</td>
<td>12 (8%)</td>
</tr>
<tr>
<td>Very slow</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Total</td>
<td>144 (100%)</td>
</tr>
</tbody>
</table>
ICT Adoption Rate

The table above and figure below show that 2% and 8% of the respondents believed the adoption rate were very slow and slow respectively, while 24% of them felt that there was a moderate rate of adoption of ICT. The rest of respondents which constitutes 17% and 47% forming the majority of the respondents were of the opinion that ICT adoption rate in the small enterprises was fast and very fast respectively. On the likert scale rating, the adoption rate according to the table above is 3.7 which lies above moderate. It is notable that the adoption rate was evidently placed on the higher side. This indicates that the respondents believed there was a steady growth of ICT adoption rate in small enterprises, but a considerable number of respondents still were not satisfied with the growth rate. Therefore this indicates that some implementation factors and adoption should be addressed before firms can maximally reap the full potential of ICT adoption.

Areas of ICT Usage in Firms

The study sought to find out areas of ICT usage among the small enterprises in the CBD. The areas were categorised under document processing, Accounting Processing, Inventory Control and sales and Communication as shown in the table below:

<table>
<thead>
<tr>
<th>Area of use</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Processing n=144</td>
<td>132 (92%)</td>
</tr>
<tr>
<td>Accounting Processing n=144</td>
<td>92 (64%)</td>
</tr>
<tr>
<td>Inventory Control and sales n=144</td>
<td>88 (61%)</td>
</tr>
<tr>
<td>Communication n=144</td>
<td>143 (99%)</td>
</tr>
</tbody>
</table>

The table above shows that a majority (99%) of the small enterprises use ICT for communication and 92% for document processing, while those using it for accounting processing and inventory control and sales were 64% and 61% respectively. From the results above, areas of ICT usage in firms tend to cover all essential areas of business processes. This was evidenced from the high percentages of respondents in each category.

7 Conclusions

The study found out that all the enterprises used basic communication category of ICT and that above 50% of all the respondents had adopted technology of one form or the other as best suited their situations. The study therefore concludes that there exists a recognizable level of ICT adoption and integration amongst small enterprises. It is therefore, necessary to develop programs and solid strategies aimed at sustaining the ever growing quest in this technological arena by cutting cost, offering competitive leverages and managing business dynamics. Furthermore, more than 50% of the respondents believed that ICT adoption rate was slow. The need for accelerated adoption of ICT among SEs in the CBD is urgent to spur economic growth.

Further, the study revealed that there was a statistically significant association between ICT adoption level and business performance at level 0.05 (χ² = 27.22; df = 9; p= 0.05 ;) and the χ² critical value at 0.05 is equal to 16.919. This confirms that ICT adoption level is highly associated with business performance. Better business performance means less unemployment and its attendant ills in the society.

8 Recommendations

The laid down procedures and rules governing the use of ICT should be consistently reviewed and appropriate planning undertaken to allow small enterprises to take a proactive approach to problem
solving to enhance company ICT and overall business performance and to also minimize waste and mistakes.

The ICT policies and procedures have to be carefully programmed, thoroughly crafted and tested to help prevent and recover from many kinds of mistakes and wastes. Firms should develop manuals and training programs which specify criteria for new resource purchases, user developed processing tools, implementation, security, underlying ethical issues and periodic reviews for the effectively building, maintenance and utilization of policies and procedures.

The Government of Kenya should focus in the development of Community access to ICT by providing easy access and incentives of acquiring or installing phone shops, telecenters (with different models for different settings), public phones, libraries, among others, and in strategic locations (e.g., near or at the informal market area, adjacent to health clinics. Further offer Community access to ICT at an affordable cost and based on dependable technology solutions (e.g., wireless and fixed wireless and satellite connections) that can rapidly be installed and effectively utilised.

Although the Government of Kenya has some policies in place, it must continue to foster and play an active role in encouraging and promoting the adoption of ICT while ensuring coherent enabling policies. The policies should include Provisions of financial and non-financial incentives to start-up ICT firms. She should also offer tax incentives to SEs that buy ICT products and services from local firms. The Government should also build and develop ICT capacities and skills in order to attain national socio-economic goals.

Areas for Further Research

Additional research should be carried out to reveal information on small enterprises dynamics, especially on the challenges facing small enterprises.

9 References


An Assessment of Communication Dynamics E-Government: A Case of the Online Recruitment System

Ntwigah, Fridah Wanjiru – (Moi University, School of Human Resource Development, Kenya)

1 Abstract

E-government is a communication strategy that was established in Kenya in 2004 in order to interlink all the Government ministries and departments with the aim of providing quality service to the public. This paper aims at assessing communication dynamics in e-government, focusing on the Public Service Commission of Kenya’s online recruitment system. The paper seeks to: investigate the knowledge and awareness of public officers in accessing and utilising e-government services; find out the perception of public officers towards e-government services and the online communication platform and to establish the challenges faced by public officers while using e-government services.

The research for this paper was carried out in Nairobi among public officers who serve in various ministries. The sample comprised of five ministries which will be systematically selected from the 42 ministries that currently exist in Kenya, in order to obtain the sample from the total population. The selected ministries were then broken down into ten departments namely Administrative Division, Human Resource Management and Development Division, Central Planning Unit (CPU), Accounts Unit, Finance Unit, Procurement Unit, ICT Unit, AIDS Control Unit, Public Relations Office, Transport Section. Thereafter, from a list of all members in each department three respondents were be selected randomly from each department for the purpose of the paper. Data was collected using questionnaires. Data was analysed using SPSS and Microsoft excel package. Correlations will be used to establish the perceptions, challenges, knowledge and awareness of public officers towards e-government services. It is anticipated that the paper will provide insights into the use and access of e-government services and particularly establish if ICTs have any relevance in Kenya’s growth and Africa as a whole.

Key words: E-government, perceptions, challenges, and ICTs

2 Introduction

In the recent past perceptions and attitudes about contribution of Information Technology towards the improvement of productivity and service delivery has elicited a lot of concern. Many developing countries have made great investments in ICTs. Pressure on governments to perform better and more efficiently has increased particularly by way of e-government.

E-government is seen to initiate focus on quick service delivery to citizens of any country. Internet has brought about technology that has helped governments the world over improve relationships between citizens and government as well as encourage more civic engagement of its citizens.
Traditionally governments used manual filing systems which made it difficult for citizens to access critical services. However for most government operations the use of ICTs in service provision has become critical and is seen as a standard for achieving greater performance gains.

**Background to the Paper**

The term e-government has now come of age and is generally used to refer to the application of advanced ICT to deliver public services (Holmes, 2001).

One of the core elements of managerial reforms in any country is IT and electronic government (e-government) is poised to feature prominently in future governance (Kalu, 2007). It has opened up many possibilities for improving internal managerial efficiency and the quality of public service delivery to citizens. It has contributed to dramatic changes in politics, government institutions, performance management, red tape reduction, and reengineering (Moon, 2002).

Contemporary studies (Graber, 2003; Kendall, 1999; Taylor, Groleau, Heaton and Van Every, 2001; United Nations Department of Economic and Social Affairs [UNDESA], 2003; West, 2000) indicate widespread and dramatic diffusion of various IT innovations (mainframe and personal computers, geographic information systems, networks, web pages, and others) in the public sector – all geared towards advancing e-governance as a means of enabling governments to overcome the barriers of time and distance in providing public services. Furthermore, citizen participation in government is a ripe area for e-governance, in part because the Internet is a convenient mechanism for citizen-users to engage their government, and also because of the potential to decentralize decision making (Holzer and Melitski, 2003).

Implementation of e-government systems enhances good governance and service delivery by eliminating inefficient processes and reduction of red-tape. This is because traditional-based government systems were characterised by transactions that involved manual physical filing systems which are burdened by enormous movements of correspondence, duplication of files, wastage of paper, difficulty in accessing information in files, loss of data and general inefficiency of operations. However, due to the specific environment that most African countries find themselves in, the structural inequality in infrastructural development (including ICT) between the rural and urban populations represents a classic case of market failure. This has generally been driven by the high cost of technology deployment, high costs of associated technical services and materials (power, logistical support, maintenance and repairs, follow-up and monitoring, and technological innovation), and generally low level of per capita disposable income (Kalu, 2007).

Holmes (2001) points out that the purpose of e-government is to realise delivery of public services in a much more convenient, customer-oriented, cost-effective, and better way. Moreover, e-government is aimed at cutting costs and improving government efficiency, meeting and improving citizen expectations and relationships, and facilitating economic development. Beck et al (2003) observes that throughout the world governments are implementing e-government systems to obtain efficiency gains, and force governments to become more transparent and accountable in the way they carry out their businesses.

**E-government in Kenya**

E-government in Kenya was established in the year 2004 under the uniform resource locator (http://www.e-government.go.ke), which was committed towards achieving an effective and operational e-government to facilitate better and efficient delivery of information and services to the citizens, promote productivity among public servants, encourage participation of citizens in Government, improve accountability and empower all Kenyans. However five years later Kenyans are yet to receive full access to information and fully benefit from it. Kalu (2007) attributes this to the “digital divide” in the utilisation of e-government between developed countries and the less developed countries (LDCs). Since African countries rank very low on the global measure of e-government readiness, this poses serious consequences for their political and economic development.
E-government achievement in Kenya is one of the main priorities towards the realisation of national development and goals and objectives for Wealth and Employment creation as stipulated in the *Kenya Vision 2030*. The Government of Kenya did this by establishing the e-government Programme in June 2004. It has since then committed itself towards achieving an effective and operational e-government to facilitate better and efficient delivery of information and services to the citizens, promote productivity among public servants, encourage participation of citizens in Government and empower all Kenyans. By utilisation of e-government the Government has realised significant benefits the delivery of more effective and efficient information and services to the citizens of the Kenyan Government.

The key benefits that were envisaged include, communities, broadened public participation, simplifying delivery of services to citizens, minimising the Government bureaucracy, improved interactions among government units and with business, industry and citizens, increased empowerment of citizens and businesses through access to information, knowledge and services, more efficient government management, improved productivity (and efficiency) of government agencies, more effectively, cheaper and more convenient delivery of information, knowledge and services, making it possible for citizens, businesses, other levels of government and government employees to easily find information and get service from the Government and government agencies, strengthened legal system and law enforcement and improved quality of life for disadvantaged. (www.government.go.ke). However, this has not been the case and Kenya still lags behind in terms of ICTs infrastructure.

Vows, (2008) argues that there needs to be more focus on dissemination of information to understand the incentives and interests of government, legislature, the media, business interests and civil society regarding access to information. Cruz, (2009) on the other hand notes that Citizen Groups and other stakeholders can build political will for the access to government information so long as the Government is transparent in its delivery of the information to the public. From the above it is clear that a significant performance gap exists between accessibility of Kenyan government websites in service delivery to its citizens.

**Problem Statement**

Access to information is critical for enabling any government to perform effectively and to enable its citizens to exercise their voice, to effectively monitor and hold government to account, and to enter into informed dialogue about decisions which affect their lives. It is seen as vital for empowering all citizens. A key question in this regard then would be to what extent then can e-government improve access to information, and improve government operations in delivery of service to the public.

Bellver and Kaufmann, (2005) indicate that access to information and communication reforms do improve governance and development outcomes. Kenya has not been left behind and in the year 2004 it began a rigorous campaign of promoting use and access to information by citizens by way of e-government. Higher education continues to argue that access to information supports good governance and poverty reduction.

Access to information or Freedom of Information (FOI) legislation is seen as an essential part of the enabling environment for citizen access to information. In theory, a legal right to information can increase government openness and responsiveness to requests for information. But developing countries often do not have adequate legal provisions for the right to information. Fewer than 7.5 percent of African countries have an enforceable right to information law (Darch, 2009). Experts suggest the main obstacles include a failure of political leadership, a culture of secrecy, low public awareness, and institutional barriers as key in failure to access information in any government (Centre, 2010).

Many countries, especially in the developing world (for instance, Ghana, Uganda, Zambia and Panama), offer minimal or negligible opportunities for online access to public databases or for constructive civic engagement (Kalu, 2007). Kenya is not an exception in this case and even
after the introduction of e-government effective and operational e-government services are yet to benefit citizens.

With “limited human and technological infrastructure support, many countries including Kenya that have recently invested in e-government have tended to lose out in the set of world comparative rankings” (UNDESA, 2003, p. 38). Digitising service deliveries like filing personal income taxes online or paying value-added taxes (VATs) electronically represents a marked departure from the traditional paper-based way of doing business. For some countries, such departures have culminated in success, whereas for others, the challenge is formidable but not insurmountable. E-government potentially empowers individual citizens by providing them with an alternative channel for accessing information and services and interacting with the Government. It also gives the individual citizen another choice: whether to become an active participant in the governing process or remain a passive observer. Taken together, “The centrality and importance of strengthening the political and administrative frameworks for the efficient and responsible governance in African countries has been recognised as the key component of sustainable development” (UNDESA, New Partnership for Africa’s Development, and Ministry of Public Service and Administration, Government of South Africa, 2002, p. 3).

The relative rankings on the e-government Readiness Index do reflect a country’s economic and social developmental context. Industrialised nations, whose citizens enjoy the benefits of abundant resources, superior access to information, and a more participatory relationship with their governments, rank well above the Global e-Government Readiness Index mean (world average) of 0.413. The region with the highest ranking is North America (0.8751), and the second is Europe with a ranking of 0.5866. The African region ranks last in comparison to the rest of the world with a mean of 0.2528. The country with the highest ranking in the Global E-Government Readiness Index is the US with a score of 0.913, and the lowest is Niger with a score of 0.062. All of Africa rank below the average for the rest of the world on all indicators and measures of the E-Government Readiness Index, and hence are characterised as having minimal to deficient e-government capacity (Kalu, 2007).

Despite the fact that the e-service at the Public Service Commission of Kenya is gaining momentum, government web sites are still very basic, providing little interaction with the citizens. Most of the Government web sites have paid little attention to enhanced citizen-government engagement. Schuppan (2007) points out that e-government in developing countries including those in Sub-Saharan Africa is still in its infancy.

Likewise, the Ibrahim Index on African Governance reported the difficulties that were faced in collecting secondary data from government web sites saying that not all African countries have web sites and where they do, they may not post any useful data (Rotberg, 2007).

Existing studies on e-government tend to focus on performance by evaluating the services available on government web portals (West, 2004). Their major emphasis is on online services offered by the Government. The citizens’ perspective, in contrast, is less researched and not well articulated. Few studies have made an initial inquiry into the characteristics of citizens who tend to interact with government in looking for government services.

Basing on the above studies it is apparent that the success or failure of e-government services by the Kenyan government, Africa and the world at large is still unknown. This paper therefore sought to at establish the perceptions, attitudes, challenges, knowledge and awareness of public officers in utilising e-government services with specific focus on the online recruitment system utilised by the Public Service Commission of Kenya which is charged with the recruitment of personnel for all Kenyan Government ministries.

**Objectives of the Paper**

The aim of the paper was to find out the perceptions, attitudes, challenges, knowledge and awareness of public officers towards e-government services: a case of online recruitment system. Specifically, the paper aimed at:
1. Establishing the extent of knowledge and awareness of public officers in utilising the Public Service Commission of Kenya online Recruitment Services.

2. Investigating the perceptions and attitudes of public officers towards the Public Service Commission of Kenya’s online recruitment services, e-Resources and online communication platform.

3. Finding out the challenges faced by public officers while accessing the Public Service Commission of Kenya online recruitment services.

3 Research Methodology

Chapter Overview

This chapter highlights the research methodology which was used in carrying out the paper. It includes the research design, target population, sampling design and sample, data collection instruments, data collection techniques and the data analysis techniques that were employed in the paper.

Research Design

A research design is a plan showing how the problem under investigation will be solved. This paper adopted a descriptive research design. Kotler and Armstrong (2000) observe that this method is best suited for gathering descriptive information; where the researcher wants to know about people’s feelings, attitudes or preferences concerning one or more variables through direct query. Descriptive research typically involves measuring a variable or set of variables as they exist naturally. It is concerned with the description of individual variable with the goal of describing a single variable to obtain separate descriptions for each variables when several are involved (Fredrick and Lorri-Ann 2008).

Descriptive research design on the other hand can be used when the problem has been designed specifically. It is appropriate when the researcher knows something about the problem and would like the subject to describe certain issues with the main emphasis on determining the frequency with which something occurs or extent to which variables are related. (Mugenda and Mugenda, 2003).

Target Population

The target population for the paper was all government ministries. Since Kenya has 42 ministries, 5 ministries were be selected for the purposes of the paper as this acted as a representative sample for the paper. According to Mugenda and Mugenda (2003), a sample can be said to be representative if it is accounts for 10 percent of the total population. For this paper the sample size is 10 percent of the total population and can therefore act as a representative sample of the total population.

Sampling Design and Sample Size

The paper used systematic sampling design to come up with the ministries in order to obtain the sample size from the total population. This meant the selection of every $k^{th}$ element from the total population, where $k$, the sampling interval, was calculated as:

$$k = \frac{\text{population size (N)}}{\text{sample size (n)}}, \text{(Mugenda and Mugenda, 1999).}$$

In this case, $N = 42/5$

thus $k = 9$

Every 9th ministry was picked for the purpose of the paper. The selected ministries, that is, n (the sample) which is 5 were then broken down into ten departments namely Administrative Division, Human Resource Management and Development Division, Central Planning Unit (CPU), Accounts Unit, Finance Unit, Procurement Unit, Information and ICT, AIDS Control Unit, Public Relations Office, Transport Section. Thereafter, a list of all staff in each department was written down from
which three respondents were picked randomly from a box containing the names for the purpose of the paper making a total of 150 respondents.

**Data Collection Instruments**

Data was collected through administration of a questionnaire. A questionnaire was designed to capture the objectives of the paper which were: perception and attitudes towards e-government services; knowledge and awareness and challenges faced by public officers while utilising e-government services specifically the online recruitment service. The questionnaire had close-ended questions.

The closed ended questions were designed to enable the research to be limited to stated alternatives. The alternatives were simplified to enable ease of understanding and to facilitate accurate response. The questionnaire was chosen since according to David (2002), a questionnaire can be designed to gather information from a large group of respondents and lowers the cost because the respondents’ answers can be coded and are easy to tabulate.

Leonard (2007) maintains that questionnaires are inexpensive, respondents are not under any pressure to respond immediately, encourages openness, offers a greater feeling of anonymity and thus respondents are more comfortable in expressing their feelings. Questionnaires were therefore chosen since they would enable the researcher to collect large amount of information within a short period of time. The questionnaire was self administered. (Appendix 1)

4 Data analysis and Discussion of Findings

**Demographic data**

**Response rate**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded questionnaires</td>
<td>144</td>
<td>96</td>
</tr>
<tr>
<td>Non responded questionnaires</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Spoilt questionnaires</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2: Name of Ministries that participated in the study

<table>
<thead>
<tr>
<th>Name of Ministry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Co-operatives Development and Marketing</td>
</tr>
<tr>
<td>Ministry of Education</td>
</tr>
<tr>
<td>Ministry of Sports and Youth Affairs</td>
</tr>
<tr>
<td>Ministry of Higher Education, Science and Technology</td>
</tr>
<tr>
<td>Ministry of Finance</td>
</tr>
</tbody>
</table>
Figure 1: Participation in the Paper According to Gender

From the Figure 1 above it is clear that out of the total respondents 97 were male (65 percent) and 53 were female accounting for 35 percent.

Table 3: Level of Education

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Graduate</td>
<td>33</td>
<td>22</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>52</td>
<td>34</td>
</tr>
<tr>
<td>Diploma</td>
<td>37</td>
<td>25</td>
</tr>
<tr>
<td>Certificate</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the table above, most of the respondents 34 percent had attained undergraduate level followed by Diploma level, 35 percent, Post graduate level, 22 percent and certificate at 19 percent. This can mean then that most of the public officers are yet to attain higher levels of education in terms of post graduate studies which would mean the literacy levels in the public services are just well above average.

**Information on E-Government Resources**

Table 4: Awareness of Online Recruitment Services

From the pie chart above it appears 72 percent of the respondents are aware that the online recruitment services do exist as opposed to 28 percent who were not aware that the online recruitment services existed.
Table 5: Year respondents got to Know of Public Service Commission of Kenya Online Recruitment Services

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>2005</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>2007</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>2008</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>2009</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td>2010</td>
<td>40</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table 51 respondents (34%) got to know of the online recruitment services in the year 2009, followed by 40 (27%) in the year 2010. This is six and seven years respectively after the Kenyan government introduced the e-government services. This could then mean that the diffusion of ICTs has progressed slowly. The attainment of e-governance is far from being successful as has been portrayed by the number of respondents who got to know of the PCSK online recruitment services seven years after it was launched.

Table 6: Medium of Learning about the Online Recruitment Services

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government website</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>Kenya Gazette</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Television</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Newspapers</td>
<td>46</td>
<td>31</td>
</tr>
<tr>
<td>Radio</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>College announcements</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Friends</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table above most respondents 47 (31%) got to know of the online recruitment services through the newspapers, followed by government websites 27 (18 percent). Radio at 23 (15%), Kenya Gazzette 19 (13%), Friends 16 (11%), Television, 11 (7%) and College announcements at 9 percent in that order. From this one can deduce that the Government web sites are still lagging behind in provision of online services. Traditional media in the form of newspapers is still being used in informing the public.

### Applying for Current Jobs/Promotions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the Ministry web-site</td>
<td>56</td>
<td>37</td>
</tr>
<tr>
<td>Through the Public Service Commission of Kenya website</td>
<td>32</td>
<td>21</td>
</tr>
<tr>
<td>Through the recruitment agency</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Through a friend/relative</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
</tr>
</tbody>
</table>
In Table 7 above a total of 56 respondents (37%) applied for their current jobs and promotions through their respective ministry web sites. 36 respondents (24) applied through friends and relatives and only 32 (21%) applied through the Public Service Commission of Kenya web site. This then shows that information on the online recruitment services is still lacking.

Ways in which respondents were contacted for the interview

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the ministry web site</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>Through the public service commission of Kenya web site</td>
<td>39</td>
<td>26</td>
</tr>
<tr>
<td>Through email</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Through formal letter</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Through newspapers</td>
<td>42</td>
<td>28</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table above it is clear the 42 (28%) of the respondents were contacted for the interview through the newspapers as compared to 39 (26%) who were contacted through the Public Service Commission of Kenya web site. Government web sites were also used to contact the respondents at 24 (16%) and through email 12 (11%). Formal letters were also used to invite the candidates for interviews at 11 (9%) while others which included telephone calls stood at 15 (10%). From the above it is clear that newspapers which is a form of traditional media dominate all other forms of contacting candidates for interviews.

Knowledge and Awareness of E-Government resources

Figure 4: Pie Chart Showing Access to Internet

From the pie chart above it is clear that 79 percent (118) of the respondents had access to internet on a daily basis while 21 percent (32) did not have access to the Internet.

Table 7: Type of Internet Connection

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>Cyber Café</td>
<td>68</td>
<td>45</td>
</tr>
<tr>
<td>Modem</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Office and cyber Café</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
</tbody>
</table>
From the table above it is clear that the highest percentage 45 percent (68) could access Internet from the commercial cybercafés. 35 percent (43) could access Internet from their office while 7 percent (12) used modems to connect to Internet 5 percent (8) combined both the office and the cybercafés. What is emerging here is that government offices still lag behind in terms of Internet connection.

Table 8: Number of those Who had Visited the PCSK Website

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>107</td>
<td>71</td>
</tr>
<tr>
<td>No</td>
<td>53</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 10: Perceptions towards PCSK Website

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know how to browse the PSCK website</td>
<td>1.3</td>
<td>0.6</td>
<td>0.4</td>
<td>1</td>
<td>3</td>
<td>103</td>
</tr>
<tr>
<td>I habitually visit the PSCK website</td>
<td>2.8</td>
<td>1.3</td>
<td>1.7</td>
<td>1</td>
<td>5</td>
<td>103</td>
</tr>
<tr>
<td>It is easy and quick to access the PSCK website</td>
<td>2.1</td>
<td>1.3</td>
<td>1.8</td>
<td>1</td>
<td>5</td>
<td>212</td>
</tr>
<tr>
<td>I am very comfortable while navigating the PSCK website</td>
<td>2.1</td>
<td>1.3</td>
<td>1.6</td>
<td>1</td>
<td>5</td>
<td>191</td>
</tr>
<tr>
<td>The PSCK website has all the links I need when making a job application</td>
<td>2.5</td>
<td>1.6</td>
<td>2.6</td>
<td>1</td>
<td>5</td>
<td>183</td>
</tr>
<tr>
<td>I understand all the options at the PSCK website</td>
<td>2.4</td>
<td>1.5</td>
<td>2.1</td>
<td>1</td>
<td>5</td>
<td>183</td>
</tr>
<tr>
<td>I get consistent updates at the PSCK website</td>
<td>3.1</td>
<td>1.2</td>
<td>1.5</td>
<td>1</td>
<td>5</td>
<td>183</td>
</tr>
</tbody>
</table>

From the Table 12 it shows a mean of 1.8 which shows that most respondents knew how to browse the internet. On the other hand a mean of 2.0 showed that the options given at any given website were not well understood by the respondents. Respondents agreed that they knew the sites to search for the content that they need and also were agreeable at a mean of 1.5 that they were very comfortable while surfing the net.
Table 12: Perceptions towards Accessibility to the PSCK Online Recruitment Portal

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The PSCK website takes a short time to load</td>
<td>2.2</td>
<td>1.3</td>
<td>1.6</td>
<td>1</td>
<td>5</td>
<td>98</td>
</tr>
<tr>
<td>The PSCK webpage is easy to navigate</td>
<td>1.9</td>
<td>1.1</td>
<td>1.1</td>
<td>1</td>
<td>4</td>
<td>104</td>
</tr>
<tr>
<td>Queries are responded to fast</td>
<td>2.5</td>
<td>1.5</td>
<td>2.2</td>
<td>1</td>
<td>5</td>
<td>104</td>
</tr>
<tr>
<td>Information on the PSCK website is regularly updated</td>
<td>2.4</td>
<td>1.3</td>
<td>1.8</td>
<td>1</td>
<td>5</td>
<td>110</td>
</tr>
<tr>
<td>The terminologies used on the webpage are easy to understand</td>
<td>2.3</td>
<td>1.1</td>
<td>1.2</td>
<td>1</td>
<td>4</td>
<td>106</td>
</tr>
</tbody>
</table>

With a mean of 2.2 from the Table 4.3.4 most respondents felt that the PCSK website does not take a short time to load and is not very easy to navigate. At an average mean of 2.5 most respondents felt that queries were not responded to fast and information on the website is not regularly updated.

Table 12: Factors often Considered by Officers While Making Online Applications

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety of information with PSCK database</td>
<td>2.5</td>
<td>1.1</td>
<td>1.1</td>
<td>1</td>
<td>5</td>
<td>250</td>
</tr>
<tr>
<td>Confidentiality of your information</td>
<td>2.5</td>
<td>1.1</td>
<td>1.1</td>
<td>1</td>
<td>5</td>
<td>228</td>
</tr>
<tr>
<td>Probability of being selected for an advertised job/vacancy)</td>
<td>2.7</td>
<td>1.2</td>
<td>1.4</td>
<td>1</td>
<td>5</td>
<td>234</td>
</tr>
<tr>
<td>Money spent in accessing the online portal)</td>
<td>3.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1</td>
<td>5</td>
<td>231</td>
</tr>
<tr>
<td>Time taken to receive a confirmation</td>
<td>2.6</td>
<td>1.1</td>
<td>1.2</td>
<td>1</td>
<td>5</td>
<td>245</td>
</tr>
<tr>
<td>Complicated application processes</td>
<td>3</td>
<td>0.9</td>
<td>0.9</td>
<td>1</td>
<td>5</td>
<td>223</td>
</tr>
<tr>
<td>PSCK website ease of navigation</td>
<td>2.7</td>
<td>1.1</td>
<td>1.1</td>
<td>1</td>
<td>5</td>
<td>211</td>
</tr>
</tbody>
</table>

Table 13 shows factors the officers often considered while making online applications. Safety of their information with the PCSK database was considered very often as well as confidentiality of their information with a mean of 2.5 the probability of being selected for a vacancy was also considered often Money spent while accessing the online portal was rarely considered as well as the complicated application process.

This then shows reason why most officers were shy to use the online recruitment system to make any job applications.
Table 13: Challenges that Applicants Consider to Affect their Online Application

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistency of the PSCK messages</td>
<td>2.1</td>
<td>1.0</td>
<td>0.9</td>
<td>1</td>
<td>5</td>
<td>217</td>
</tr>
<tr>
<td>Outdated information at the website</td>
<td>1.9</td>
<td>1.0</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>215</td>
</tr>
<tr>
<td>Low internet speeds which results to spending more while browsing the PSCK website</td>
<td>2.1</td>
<td>0.9</td>
<td>0.9</td>
<td>1</td>
<td>5</td>
<td>215</td>
</tr>
<tr>
<td>Long time taken to open the online portal page</td>
<td>2.3</td>
<td>0.6</td>
<td>0.4</td>
<td>1</td>
<td>3</td>
<td>211</td>
</tr>
<tr>
<td>Inaccessibility of internet services</td>
<td>3</td>
<td>1.1</td>
<td>1.3</td>
<td>1</td>
<td>5</td>
<td>203</td>
</tr>
</tbody>
</table>

From the table 4.4 inconsistency of the PCSK messages was often considered with a mean of 2.1. Outdated information on the website and low internet speeds was also considered in the online application process with a mean of 1.9 and 2.1 respectively. Inaccessibility of internet services was a major factor that led to the officers choosing to use the manual application forms.

**Other Challenges**

From the paper it was also established from the respondents that sometimes it was necessary to make physical follow up of the application from the respective government offices which ended up wasting their time. The application process is also seen as tedious as they are required to be forwarded through one's immediate supervisor and in the case where the supervisor was not computer literate then one had to physically print the forms, fill them in and forward them to supervisors for signature.

Other challenges that emerged include ministries not being interlinked. As to regards the job advertisements it was impossible to find information on the jobs advertised. The posting on the webpage was limited and also took long to upload. In some instances respondents said that while waiting for the page to upload a message saying that the current page had expired often popped up.

Another challenge that emerged was the online recruitment portal being extremely busy, leading to congestion. It was also found out that most advertised posts on the webpage had already been filled up yet they were still posted on the website. Respondents also pointed out that they needed regular training on the use and accessibility of the Government websites due to the constant change in technology.

**Suggestions on how job applications at the PSCK online portal can be improved**

Paper results on suggestions on how job applications can be improved included some respondents suggesting that advertisements could be place on television and fm radio stations. Others felt that advertisement on newspapers was inadequate. Other suggestions included creating a new browser for job application to avoid congestion, delivery of prompt feedback upon application. Respondents also felt that integrating the Short Message Service (SMS) would be vital in alleviation congestion since one could check their status through their mobile phone. Updating of information on the webpage also emerged from the paper.
5 Conclusions and Recommendations

Introduction
This chapter details the conclusions and recommendations of the paper as to regards assessment of e-government communication dynamics focusing on the online recruitment service.

Conclusions
This paper has shown that the increased interest on using ICTs to enhance quality service delivery to the public is important for any country that is keen on improving performance by way of e-government. It is clear from the paper that successful communication dynamics in e-government are yet to be attained. The Kenyan government needs to address the issues raised since these public officers are the same people that are charged with delivery of services to the citizens. Their satisfaction is therefore of utmost importance. Those officers need to be constantly educated and retrained in order to be able to freely access and use information for their benefit. The findings also show that the level of ICTs presence in government offices is still average and they are yet to depart from the manual application system completely and embrace the online application system. It is worth noting that investment and development of ICT infrastructure should be given key priority in the provision of public services.

Issues of perceptions and attitudes should be addressed and the officers assured that safety and confidentiality of information with the PCSK database was sage and only people with authority could access so there was no need to fear making an online application.

The paper also concludes that various challenges tend to face the public officers while accessing the e-government resources. The aim here should be to improve on the consistency of messages, do away with outdated information, try to increase internet presence and speeds and reduce physical follow-ups on applications. The paper also concluded that ministries are not interlinked and it would be critical for the Governments to develop ICT programmes to bridge the gap between ministries. An increase in “web presence” is vital in ensuring end-user expectations are met. Compatibility of ICT infrastructure also emerged to be wanting in government ministries.

Recommendations
When we closely examine communication dynamics of e-government it would be advisable for governments to strive to review accessibility needs as to regards the usability and accessibility of e-government services. There should be constant training and retaining at all levels of education by embracing e-learning since the current globalisation trends tends to lead everything to be ICT enable. Governments should embrace the fact that ICTs reduce the amount of paperwork and as such there is need to interlink all government ministries to speed up services to the public. The Government should also update all websites regularly to do away with outdated information. The application of new technologies could also be used to enhance citizen participation in electoral processes to promote e-democracy.

In addition means by which the public accesses e-government services should also be diversified such that e-government services are accessible not only from personal computers but from other technological platforms such as mobile terminals and digital Television Sets. The Government further needs to engage in sponsoring digital literacy among citizens by reducing the digital divide. This will enable citizens gain familiarity with the internet and fully benefit from it.

Allocation of yearly budgets to fiancé ICT development would also be crucial in the attainment of e-governance, such that the Government is committed to the widespread use of ICTs in all spheres of life.

On the whole the Government should strive to have a government website that offers most of the features and links that would be found on single-entry portals to provide direct links to
various government ministries as well as information on issues of education, healthcare, land documentation, immigration services, application for identification documents to mention but a few. Some governments in the developed world have embrace this concept and are already reaping the benefits, these include the US, (http://firstgov.gov) and the United Kingdom, (http://ukonline.gov). These are good examples of single-entry portals where all vital information regarding government ministries and key departments can be found.

6 References


Cruz, A. “Building Political Will for Enhanced Access to Information: Lessons from Latin America.” Political Won’t to Political Will: Building Support for Participatory Governance, Ed. C. Malena, Civicus, 2009. 227-244


Heeks, R. Causes of E-Government Success and Failure: Design-Reality Gap Model. Institute for Development Policy Management (IDPM), University of Manchester. 2003


Mugenda O M. and Mugenda A G. Research Methods, Quantitative and Qualitative Approaches. African Centre for Technology Studies: Nairobi. 2003

Mugenda O M. and Mugenda A G. Research Methods, Quantitative and Qualitative Approaches. African Centre for Technology Studies: Nairobi. 1999


Panos, At the Heart of Change: The Role of Communication in Sustainable Development. Panos Institute, London: 2007

Puddephatt, A. “Exploring the Role of Civil Society in the Formulation and Adoption of Access to Information Laws: The Cases of Bulgaria, India, Mexico, South Africa and the United


Designing and Developing an ICT Management System for Teaching and Learning in Kenya: The ODL Model

Kessio, David K.; Boi, James K. and Boit, John M. (PhD) – (Moi University, Kenya)

1 Abstract

Majority of developing countries are grappling with enormous pressure on how to resolve rising enrolments pegged on the bed occupancy of many public universities. The problem is compounded by the limited or lack of meaningful quantitative expansion of infrastructural facilities to accommodate rising student population whom compete for already over stretched facilities and resources. However, the rapid advancement of IT has resulted in the world becoming a global village. IT in the educational sector is growing at a steady rate as institutions of higher learning recognise the capabilities of IT to supplement, enrich, expand, integrate, and support existing traditional mode of learning. Consequently, the student and teachers are separated in time and space irrespective of their geographical locations where they participate in a synchronous communication via open and distance learning (ODL) as institutions of higher learning continue to leverage on existing and ICT infrastructure. The study investigated the historical evolution, types, and application of ODL in developing countries. The study further looked at components necessary for a functional ODL and the study focused on the status of ODL in Kenya. Therefore, the results of the study show that the design and development of an information and communication technology management system for teaching and learning through ODL delivery is very necessary, viable, and that ODL is a stepping stone to expanding access to higher education opportunities.

Key words: ODL, ICT Management System, Teaching and Learning

2 Introduction

Recent technological innovation, inventions, and advancement have completely changed the way people carry out their daily life activities. IT has virtually pervaded our way of living in a manner that people nowadays mostly rely on to conduct efficiently the day-to-day tasks and activities. The Internet has played a phenomenal role in developing a global village by improving the delivery of services and products. In addition, the convergence of technology coupled with faster Internet speeds has changed our social culture by narrowing down the digital divide inherent a couple of years ago before the beginning of the 21st Century. This is paramount at this era of implementation of Vision 2030 as Kenya involves countrywide needs assessment and provision of infrastructure and equipment needed for ICT (GOK, 2008).

In effect, these technological advancements and fast Internet speeds are at present deeply rooted in developed countries. Open and Distance Learning (ODL) can be defined as a learning experience in which the student and the instructor are separated in time and space, use synchronous communication, and employ mixed-media courseware such as print, video, radio, television
broadcast, computers, and telecommunication to provide a framework to deliver educational and instructional content (Commonwealth of Learning, 2008).

The concept of ODL is currently widely spread in Europe and North America. The quantitative expansion of higher education as well as the rising enrolment in developing countries especially in Africa has hindered access to higher education by the masses. Consequently, bound by limited resources and minimal funding by African governments, institutions of higher learning have had to seek alternative means to remain competitive while ensuring that they continue with expansion efforts to meet the educational needs of the population.

The telecommunication liberalisation in some African countries such as Kenya and the exponential growth of Internet technologies has provided an attractive alternative means for institutions of higher learning to leverage on information technologies to advance the concept of ODL models. Consequently, digital convergence and fast internet speeds should spur economic development and ultimately narrow the digital divide in developing countries.

The ODL model should provide an opportunity for institutions of higher learning in developing countries to narrow down the digital divide gap by allowing its population to access a great deal of electronic journals, articles, research studies and ensure that qualified candidates access higher education regardless of their geographical location. The ODL model should also facilitate partnership and provide a backbone for research collaboration with other institutions of higher learning across the globe.

**Statement of the Problem**

Adopting a suitable functional ODL model by harnessing the capabilities of an ICT management system improves and increases access to higher education within the socio-economic and political structure of developing countries. Access to highly marketable degree programmes and Science-based programmes remain limited due to high cost (GOK, 2008). ODL model would alleviate this problem.

The concept of ODL is still current. ODL is currently widely spread in Europe and northern America. ODL growth is facilitated by fast internet speeds supported by sound information technology infrastructure in place.

The development of additional infrastructure and facilities also known as quantitative expansion of higher education, and the rising enrolment in developing countries especially in Africa, has hindered access to higher education by the masses. Consequently, bound by limited resources and minimal funding by African governments, institutions of higher learning have had to seek alternative means to remain competitive while ensuring that they continue with expansion and to offer quality education to a varied population. Democratisation, peace and stability in several developing countries are also playing an instrumental role in providing a solid ICT platform as an attractive alternative means for institutions of higher education to leverage on the benefits of ODL models.

However, the major challenge so far is to adopt effectively an ICT management system that will be fully used to advance not only the ODL concept but also to help boost economic growth of a country, for example, by producing a society of learned people.

**Objectives of the Study**

The following research objectives were used to a guide this study:

1. Identify a sustainable ODL model to be used in developing countries.
2. Establish elements that make up an effective ODL model.
3. Examine how ODL can bridge the digital divide.
4. Establish how ODL model can increase and improve access to education in institutions of higher education.
5. Examine the impacts of ICT policy formulation towards the success of an ODL model.
3 Conceptual Framework

The model as presented in Figure 1, suggests that the use of ICT/DLR/ODL could have a final impact on the educational system by allowing students achieving higher educational attainment, developing stronger digital competences and improving access policy results. It implies development of Sound ICT infrastructure, DLR/ODL, teachers ICT competencies. This would facilitate use of ICT and ODL within the ICT environment (micro:-socio-economic factors, Meso:-Teachers commitment-School/institutional leadership, Macro:-Curriculum-ICT national responsiveness).

Factors Necessary for ODL Adoption

The following factors are necessary for ODL adoption: correct business environment, infrastructure, social economic structure and cultural environment.

Business Environment

According to Montealegre (1998) the difference between developed countries (DCs) and less developed countries (LDCs) is business environment in terms of ODL and ICT adoption. Distinctive nature of business environment and learning from mistakes of DCs is paramount.

Basic Infrastructural Requirements

Electricity, Internet connectivity, educated workers are necessary. Commitment from government and other policy makers should be put in place.

Social and Economic Structure

Social development (including political) and economic infrastructure play role in ODL adoption. Personal income (GDP per capita) inflation, income inequality plays a role in developing nations.
A wide different persists in structures among nations of Africa. For example in 2000, Inflation of Equatorial Guinea was 52.17 percent and Ethiopia 1.4 percent.

4 Research Design and Methodology

This section explains and justifies the research design and methodology that was used to guide the study. It presents procedures used in investigating the problem and their rationale. It comprises sections on Research Design, Target Population, Sample and Sampling Procedures, Description of Research Instruments, Validity and Reliability of the Instruments, Description of Data Collection Procedures and Description of Data Analysis Procedures.

According to Brink and Wood (1998: 289), a descriptive survey design could be used “to describe the incidence, prevalence or amount of particular characteristics present in a population” such as demographics among others. A descriptive survey was used to study a suitable ODL model for developing countries, Kenya in particular. Therefore, descriptive survey was an appropriate plan for collecting information on identifying a suitable and sustainable ODL model for developing countries. The questionnaire was divided into two sections:

1. Section A for demographic information,
2. Section B for respondents to use the 5 point likert scale to answer a series of questions and statements.

The first part of the questionnaire, section A was designed to gather demographic data such as age, country, category, and level of education of respondents. Subsequently, the interview schedule comprised of five questions determined to collect data from the expert group specifically the IT staff. The designed questions asked in the interview scheduled to cover Designing and Developing an ICT Management System for Teaching and Learning.

Target Population

The study targeted population drawn from Selected Universities in Kenya- Kenyatta and Strathmore which comprised of two broad groups namely:

1. Experts: This group of users included information technology staff and teaching staff.
2. General Users: these section-included students.

Sample and Sampling Procedures

McColl and Easton (n.d) defines a sample as a group of units selected from a larger group (the population). A sample is generally selected for study because the population is too large to study in its entirety. This sample should be representative of the general population. This is often best achieved by random sampling. (McColl and Easton, n.d.)

Kenyatta and Moi universities, Kenya constituted the sample of the study. The study used a total population of 130 to gather and collect data for analysis. This study employed simple random sampling technique to select the sample size. According to McColl and Easton (n.d.), simple random sampling is the basic sampling technique where select group of subjects (a sample) for study from a larger group (a population). Each individual is chosen entirely by chance and each member of the population has an equal chance of being included in the sample. Every possible sample of a given size has the same chance of selection.

To determine if developing countries could benefit from an establishment of an ICT management system to facilitate learning and teaching via the ODL model, an interview schedule was used to capture pertinent suggestions and opinions through a series of questions. Subsequently, the interview schedules were administered mainly to the expert users for their opinion on various ICT factors affecting ODL.
Validity and Reliability of the Instrument

Validity of instruments addresses correctness - did the instrument measure what it was supposed to measure? Qualitative view of reliability is the degree of dependability and consistency. The question then becomes whether the results are consistent with the data collected.

Validity
The structured questionnaires made it possible to conduct a pilot test survey to ascertain the validity and accuracy of the content of study. Some questionnaires were administered to a university that is not a part of the sample to determine the adequacy and relevance of the content in relation to the easiness of filling out the questionnaire. This process was meant to detect and establish the validity of the questionnaires.

Reliability
A test-retest procedure was employed to determine the reliability of the instrument. According to the statistics glossary (Statistics, 2009), “the Test-retest reliability of a survey instrument… is estimated by performing the same survey with the same respondents at different moments of time. The closer the results, the greater the test-retest reliability of the survey instrument … values of the correlation 0.7…0.8 are considered as satisfactory or good.” When the results were entered into the SPSS computer statistical package and the reliability test was generated, the results indicated a reliability coefficient scale of 0.8. The data instrument was, therefore, considered to be reliable for its intended purpose.

Description of Data Analysis Procedures
The researcher employed several statistical procedures. First, the researcher used descriptive statistics to generate frequencies and percentages. Secondly, the researcher used correlation cross tabulation analysis to measure and determine the relationship among dependent and predictor variables. Cross-tabulation analysis and inferential statistics is used to determine the relationships among the predictor and dependent variables. Data from the interview schedule was collected, transcribed, and analysed in a narrative format. The researcher used SPSS computer statistical package version 16.0 to analyse the data collected from the study in compliance with the research questions.

5 Discussion of the Findings
The findings indicate that an ICT infrastructure is essential to the design and development of a sustainable ODL model. It also emerged that management support in IHE is crucial if a sustainable ODL model is to be effectively designed and developed. The research findings also indicate that training of instructors and support staff was instrumental in sustaining a reliable and efficient running of an ODL model. In addition, it emerged that adequate teaching and support staff to support the whole ODL model was necessary if learning via ODL was to be achieved.

Availability of Infrastructure
Internet-reasonable bandwidth, physical and technical. It also includes social and human skills which would create an enabling adoption of ODL.

Political and Economic Environment
ODL and ICT are heavy investments which requires political and conducive environment for its funding and adoption. Private individuals and organisation cannot really implement or adopt. Sound ICT policy and political goodwill necessary. Private funding by government through public ex-chequer, academic institutions and other player like UNESCO, World Bank is necessary.
Education for Access

Sensitisation, need analysis through education by the Government and other players.

The analysis of the research findings revealed that training of ODL instructors and support staff is critical to the continuity and reliability of learning through ODL. In addition, adequate staffing was also identified to be essential for the success of an ODL model.

Based on the discussions and findings the study therefore, shows that for ODL to exist in the first place an existing ICT infrastructure needs to be in place. The Government in developing countries in partnership and consultation with IHE's need to identify, establish, and implement a suitable ICT infrastructure as precursor to designing and developing an ODL model. According to the Kenya Vision 2030, this will go a long way in promotion of access:

Currently, youth and adult learners are required to contribute to their own learning through cost-sharing. This leads to potential learners to weigh between enrolling into education programmes or use that income to meet their demands of life (GOK, 2008).

6 Conclusions

With the right environment for ICT infrastructure, ODL policy, adequate staffing and continuous training of instructors and support staff, the researchers believes that the most suitable ODL model for developing countries is a mixed model. The mixed ODL model is sort of a hybrid of single mode and dual mode ODL model given that it combines characteristics of both by affording users the capability to experience a wider variety of choice. ODL can bridge the digital divide through interaction of learners, instructors and other stakeholders. This is achieved through teleconferencing, skype, telephony and general ICT.

7 Recommendations

The following recommendations can be derived from research findings:

1. Respective governments, institutions of higher education and other stakeholders need to be proactive implementing and reviewing ODL policies in line with their visions, missions, goals and objectives.

2. A systematic system of measuring and evaluating the ODL system for performance and functionality should be established to ensure the sustainability and longevity of a functional ODL model with relevant content, programmes, user friendly ODL system, accessible and affordable. Human and physical resources including appropriate environment for effective ODL model should be in place. Governments should provide ICT and ODL enabling environment through funding.

3. Establishing and Providing training programme or workshops for ODL instructors, support staff and other personnel. Provision of training will enhance full deployment of the ODL model by ensuring that students obtain the value for their education from capable and qualified ODL professional users. This will bridge digital divide.

4. The Government should engage in an awareness campaign to sensitise and educate the population especially those in marginalised areas about the existence, functionality, accessibility, and opportunities available of ODL as a vehicle for learning. The need to involve all stakeholders in IHE's and form partnerships with other private or non-profit organisations to support financially the establishment and maintenance of the ODL model is paramount.

5. Developing a comprehensive ICT policy that not only recognises emerging ICT technologies but includes a clear provision and future direction of how ODL in IHE can continue to leverage on ICT. Laying down and installing appropriate ICT infrastructure such as high broadband internet, rolling out wireless technology, such as WiMAX and ICT equipments like, video, teleconferencing, radio, and televisions, should be a prerequisite to
designing and developing an ICT management system for teaching and learning through the ODL model.

**Areas for Further Research**

This study is by no means exhaustive. The study is but a stepping-stone for other related studies which could include but not restricted to:

1. An evaluation of a cost-effective ODL model for rural and urban areas in developing countries.
2. The impact of mobile telephony in learning and teaching through the ODL model in developing countries.

**8 References**


Distance education’ and ‘e-learning’: Not the same thing: http://web.ebscohost.com/ehost/pdf?vid=1&hid=21&sid=ad9b0ad7-dab9-4800-b480-cab16242ae13%40sessionmgr3


Ogutu, Joseph Onyango and Irungu, Joseph Kamau – (University of Nairobi, Kenya)

1 Abstract

E-government services is growing to a considerable pace, especially in developing countries as government seeks to make use of ICT to serve its citizens efficiently and effectively. E-government projects cost are enormous and therefore it becomes imperative for governments to continuously evaluate these projects with a view of identifying the benefits, justifying investment made and improving the quality of services they offer to the citizens among other reasons.

Like the evaluation of all other ISs initiatives, the evaluation of e-governments in both theory and practice has proved to be important but complex. The complexity of evaluation is mostly due to the multiple perspectives involved, the difficulties of quantifying benefits, and the social and technical context of use.

In this research, existing frameworks for e-government software projects evaluation were analysed with the aim of developing an evaluation framework for e-government systems with the citizens/clients as the central focus. The main aim of this paper was to investigate the citizen’s perspective in evaluating e-government systems, and develop a set of evaluating factors that can be used in evaluation of e-government systems.

The study identified four main groups for evaluation of e-government system; financial, social, technical and delivery platform (in our case, website) and developed specific factors to measure these four groups with a consideration of the level of e-government in Kenya.

Two cases were considered in the evaluation of e-government services: Kenya Public Service Commission Online Recruitment and Selection Database System and Kenya Revenue Authority New Taxpayer PIN Registration Online System. The study showed that about 74 percent of the respondents were satisfied with the online job application system of Public Service Commission of Kenya while 80 percent of the respondents were satisfied with KRA new taxpayer PIN online registration.

2 Introduction

Electronic government has shown encouraging results in the developed countries in the context of delivering electronic information and services to citizens. However, despite the many lessons that can be learnt from the experiences of those e-government initiatives, developing countries are still faced with various issues pertaining to their implementation and evaluations.

One of the critical issues faced by researchers and governments is how to evaluate and assess the successfulness (and therefore impact) of e-government projects. The traditional value assessment
methods existing in the business field are not good enough to cope with the issue, as business and government hold different value perspectives and have different concerns (Liu et al., 2008).

While assessing value of e-government projects, most people’s first reaction is to relate it with commercial interests and evaluate it with monetary terms – how much money does a company make/lose? Indeed, money is the main equaliser of the private sector valuation. Most private sector valuation forms are inevitably related with the economic value and measured in monetary terms. Businesses use a sophisticated set of techniques to measure and manage value. Profit, revenue (turnover), cash flow, economic value added (EVA), net present value (NPV), and return on investment (ROI) are all possible mechanisms for business valuation. However, when talking about value in the public sector, the assessment issue becomes much less straightforward, as private businesses and public sectors hold different value perspectives and have different concerns (economical, political, social and others (Liu et al., 2008).

Farbey, Land, and Targett (1993) classified a number of IS evaluation approaches, which included quantitative methods that used tangible or direct costs and benefits and qualitative methods that accounted for intangible or indirect cost and benefits, from the organisational and human perspective. In contrast, the evaluation of e-government has proven to be even more complex as an accurate evaluation requires consideration of multiple perspectives of the stakeholders and the social and technical context of use. To overcome the complexity and difficulty of e-government evaluation, Alshawi et al. (2009), suggests that it is necessary to address and consider three main challenges for developing an evaluation framework for e-government systems. These challenges are:

1. Investigation of various perspectives (Jansen, 2005) which may not only require addressing and meeting the general needs of a target group such as citizens, but also require including the specific needs of the specific target groups of citizens which are using a particular e-government service such as unemployed persons, families, pensioners, architects, lawyers, students, and so forth.

2. Identifying and quantifying benefits: Beynon-Davies (2005) states that it is difficult to determine the precise benefits associated with e-government.

3. In evaluating e-government is the fact that, for the evaluation to be proper, it should consider the social and technical context of use. This is a result of the opinion that ISs research and the e-government evaluation as a part of it, are as much a social science as an ISs science (Mingers et al., 1997).

Some researchers argue that the suitability of an evaluation approach depends mainly on the IS and the organisational context. For example, Khalifa et al (1999) stated that there is no single IS evaluation approach that can be applied to all situations. Farbey et al. (1993) added that IS evaluation can contribute to the success of the IS when the appropriate approach is applied to the appropriate organisational context.

**Research Problem**

Kenya is a developing country and therefore as it is with other developing countries it has limited resources. Many sectors of the economy compete for these scarce resources as the Government tries to allocate them in areas that will have the highest impact both financially and socially. The Government of Kenya has in the recent past invested in e-government projects. These projects require huge outlay of initial capital both in terms of finance, time and human capital.

Due to the high costs and risks involved in implementation of e-government projects, it is important to take appropriate measures to ensure successful implementation of the few e-government projects the Government funds.
Research Objectives

The study sought to achieve the following objectives:

1. Investigate the existing frameworks for evaluating e-government software projects.
2. Perform a post implementation evaluation of selected e-government software projects in Kenya.

3 Summary of the Literature Reviewed

There are several frameworks that have been developed to deal with evaluation of e-government systems and services. Liu et al (2008) developed an integrated value assessment framework which categorised the values into four groups; financial, social, operational and strategic. In each of these categories, key performance areas (KPA) are defined to refine the value assessment and finally each KPA is measured or assessed by one or more concrete key performance indicators (KPIs).

Alshawi and Alalwany (2007) developed an e-government projects evaluation framework consisting of three groups; the technical issues group, the economical issues group, and the social issues group.

In the technical issues group, performance and accessibility were chosen among other technical issues associated with e-government systems evaluation. Performance measurement was defined as measurement on a regular basis of the results (outcomes) and efficiency of services or programmes (Hatry, 1999). According to Terry Ma and Zaphiris (2003), accessibility means an effective and efficient user interface that is inclusive of more people in more situations and can achieve user satisfaction. These two factors were used to evaluate the technical part of e-government systems. In the economic issues group, cost and time saving were chosen. There were used to evaluate what saving an e-government services user would enjoy as a result of using these services. Finally, the social issues group considered openness, trust, perceived ease of use and perceived usefulness factors. These factors were used to evaluate the unquantifiable benefits of an e-government system as well as the social aspect of an IS.

The other framework dealing with the issue of evaluation was introduced by Pettigrew (1985) referred to as content, context and process framework (CCP). The modified CCP comprise of the three main elements:

1. Content – “what” is being evaluated
2. Context – “why” and “who” evaluate IS implementation
3. Process – “how” and “when” evaluation is being done

These three angles of evaluation are able to cover social, political and cultural factors that influence the economic benefits and emphasises the need for an integrated approach to evaluation. This framework discusses e-government software/ISs evaluation in light of the environment that these systems operate. E-government software project is a sub-area of ISs, therefore it is imperative to evaluate an e-government system bearing in mind the content, context and process.

Delone and Mclean (1992 and 2003) developed and updated their famous IS success model. They proposed a model that could be used to evaluate multi-dimensional aspects that are integrated in an ISs. The measurement of ISs’ success or effectiveness is critical to understanding of the value and efficacy of IS management actions and IS investments. This model identified six interrelated dimensions of IS success. It proposed that the dimension of IS success can be represented by the system quality, the output information quality, consumption (use) of the output, the user's response (user satisfaction), the effect of the IS on the behaviour of the user (individual impact), and the effect of the IS on organisational performance (organisational impact). Mclean and DeLone have since then updated their successful IS Success Model and added another dependent variable known as service quality.
4 The Proposed Framework

Kenya is in its formative stages of e-government systems implementation and therefore it is paramount to ensure that e-government systems are successful. One of the ways to ensure successful implementation of e-government projects is by carrying out post implementation evaluation in order to find out the challenges that e-government projects are facing and design ways of improvement. The proposed framework is therefore meant as a tool to evaluate e-government systems from the citizens' point of view. Four groups of issues were identified, that is, technical, financial/economical, social and delivery platform. The metrics used under each of this group took in to account the level of e-government implementation that Kenya is currently in which is the interactive phase. Below are parameters proposed for the evaluation framework.

The proposed framework contains four aspects.

1. Technical issues.
2. Economic/Financial issues.
4. Delivery platform (Website)

5 Technical Issues

E-government software projects are both social and technical entities (Stockdale, R & C. Standing, 2006). Technical or quantifiable economic elements that has been a focus of the majority of IS evaluation to date (Symons, 1991). Bass (1998) and Clements (2002) propose the following qualities of an IS:

1. Usability – user's ability to utilise a system effectively.
2. Performance – responsiveness of the system – the time required to respond to stimuli or the number of events processed in some interval of time.
3. Reliability – ability of the system to keep operating over time.
4. Availability – proportion of time the system is up and running.
5. Security – system's ability to resist unauthorised attempts at usage and denial of service while still providing its services to legitimate users.
6. Functionality – ability of the systems to do work for which it was intended.

Some of these quality attributes might be observable during execution, that is, usability, performance, reliability, availability, security and functionality while others are non-observable during executing, that is, Modifiability, portability, variability, subsetability and testability.

McLean and DeLone (2003) propose similar e-commerce system qualities. These qualities are; usability, availability, reliability, adaptability and response time (for instance, download time) that are valued by users of an e-government system. In our proposed framework these qualities fall under technical aspect. We focus on three qualities in our proposed evaluation framework for practicability, these are: Usability, Performance and Availability.

6 Economic/Financial Issues

Assessment of E-government software system / IS can be done via many perspectives; however all these perspectives give to a certain degree of subjective results. Economic evaluation metrics are universally agreed and give hard objective facts. This enables project sponsors to make a decision based on the results, for example, a return of investment or present net value will indicate to the management if a project is worth undertaking or not. However this aspect of e-government evaluation is not a driving force in government funded projects. The major driving force in government funding an e-government project is to ensure its clients/citizens are offered efficient and effective service. However governments are going through thorough scrutiny on the use of public resources and hence they want to account for these resources. To achieve this, the Government
must carry out economic/financial evaluation on its investment in IT. If the citizens are able to
efficiently and effectively receive e-government services, then there would be enough justification
for ICT investment by government.

In our proposed framework we look at this aspect from the client/citizen perspective. We look
at the savings accrued both in time and money as a result of clients/citizens making use of online
services provided by the e-government software projects. If clients are satisfied with the services
provided by these projects then it would be implied that governments are justified in investing in
these projects. The parameters chosen in our framework are time saving and money saving.

7 Social Issues

As literature shows an e-government software project is not only a technical issue but has a social
aspect. In evaluating an e-government system, it is therefore imperative to ensure social issues
are assessed to ensure a complete impact of the project to the society is known. Benefits such as
improved decision making, customer or citizen satisfaction, and employee productivity contribute
significantly to higher performance (Gupta et al, 2003).

Some parameters used in DeLone and Mclean IS Success (1992 and 2003) and Technology
Acceptance Models (Davies, 1986) are adopted in our framework namely:

**Trust**

Belanger, Hiller and Smith (2002) define trustworthiness as ‘the perception of confidence in the
electronic marketer's reliability and integrity’. Trust in the e-government context is associated with
security in handling of information, protecting the privacy of citizens, and assuring them that their
personal information will be treated confidentially.

**Convenience**

Convenience is defined as something; an appliance, a device or service conducive to comfort or ease,
fitness or suitability for performing an action or fulfilling a requirement. The notion of convenience
perception receives much attention in the field of ISs (Jih, 2007). E-government systems are meant
to offer government services to an increased choice of citizens.

**Openness**

Openness can be defined in terms of the amount of information that government organisations
provide to citizens and the value of the information as a tool for citizens to see what government
organisations are doing, understand why they are doing it, and potentially participate in the policy
deliberation process (Eschenfelder and Miller, 2005).
Proposed Framework for e-government Systems Evaluation

<table>
<thead>
<tr>
<th>Group</th>
<th>Evaluation Parameter</th>
<th>Measuring Factor Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Issues</td>
<td>Performance</td>
<td>Measured by time taken to accomplish a task</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Measured by level of satisfaction from the client</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage compliance to specified service levels</td>
</tr>
<tr>
<td></td>
<td>Usability</td>
<td>Measured by percentage of occurrence of errors while in use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Measured by presence of comprehensive help facility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Efficient user interface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ease to learn to use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>User friendly System</td>
</tr>
<tr>
<td>Availability</td>
<td></td>
<td>System available 24/7</td>
</tr>
<tr>
<td>Financial/Economic Issues</td>
<td>Cost saving</td>
<td>How much money the client/citizen is saving</td>
</tr>
<tr>
<td></td>
<td>Time saving</td>
<td>How much time the client/citizen is saving</td>
</tr>
<tr>
<td>Social Issues</td>
<td>Trust in the internet</td>
<td>Measured by the degree of confidence of the clients in the internet</td>
</tr>
<tr>
<td></td>
<td>Trust in the e-government system</td>
<td>Judged by the level of security in handling of information and protecting the privacy of the clients</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>Judged by the level of transparency and accountability enjoyed by using an e-government service</td>
</tr>
<tr>
<td></td>
<td>Perceived convenience</td>
<td>Measured by the convenience that the e-government service offers</td>
</tr>
<tr>
<td>Delivery Platform (Website)</td>
<td>Easy to use and Navigate</td>
<td>Ability to navigate from one position of the website to another with ease</td>
</tr>
<tr>
<td></td>
<td>Presentation of website content</td>
<td>How well the web content is consistently offered by the website</td>
</tr>
<tr>
<td></td>
<td>Website organisation is logical and clear</td>
<td>Measured by clarity of the website and uniformity of the website organisation</td>
</tr>
<tr>
<td></td>
<td>Accuracy</td>
<td>Measured by the level of accuracy of website content</td>
</tr>
<tr>
<td></td>
<td>Uptodate</td>
<td>Measured by the validity and currency of the website content</td>
</tr>
<tr>
<td></td>
<td>Clear and easy to understand content</td>
<td>Measured by the ease of understanding of the website content</td>
</tr>
<tr>
<td></td>
<td>Helpful menu</td>
<td>Measured by the comprehensiveness of the help menu</td>
</tr>
</tbody>
</table>

8 Results

The findings indicate that majority of e-government service users are nearly satisfied with the services. In our first case, Public Service Commission online job application service, 1.46 percent of the respondents were very disappointed, 4.89 percent were disappointed, 41.46 percent were
slightly satisfied, 33.17 percent were satisfied and 19.02 percent were very satisfied. On one of the parameters used in the technical group namely availability, 1.95 percent of the respondents indicated that the e-service is never available, 59.02 percent indicated that its available sometimes, 38.54 percent said that its available and only 0.49 percent said that its always available. On efficiency of this e-service, 1.46 percent of the respondents rated it as very poor, 6.83 percent as poor, 52.68 percent as fair, 36.10 percent as good and 2.93 percent as very good. In our second case, Kenya Revenue Authority online new taxpayer PIN registration, none of the respondents were very disappointed, 15.71 percent were disappointed, 24.76 percent were slightly satisfied, 56.19 percent were satisfied and 3.33 percent were very satisfied. On one of the parameters used in the technical group namely availability, 2.38 percent of the respondents indicated that the e-service is never available, 50.48 percent indicated that it’s available sometimes, 33.81 percent said that its available and only 13.33 percent said that its always available. On efficiency of this e-service, none of the respondents rated it as very poor, 14.29 percent as poor, 55.24 percent as fair, 30.48 percent as good and none as very good. Generally the KRA online new taxpayer PIN registration performs better on technical aspects than the PSC online job application service. However on the delivery platform (website), PSC performed well on ease to use and navigate parameter compared to the KRA website.

**Results Obtained From Evaluation of KRA Online Registration for PIN**

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disappointed</td>
<td>33</td>
<td>15.71</td>
<td>15.71</td>
</tr>
<tr>
<td>Slightly Satisfied</td>
<td>52</td>
<td>24.76</td>
<td>40.48</td>
</tr>
<tr>
<td>Satisfied</td>
<td>118</td>
<td>56.19</td>
<td>96.67</td>
</tr>
<tr>
<td>Very Satisfied</td>
<td>7</td>
<td>3.33</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

However, on other specific metrics used in evaluating different aspects of the e-government system, the ratings by the users range from excellent to very poor. In particular, both the e-government systems considered in this study require special attention to improve the technical aspects and the delivery platform. These are information quality, system quality and website interface.

**Results Obtained of Respondents on the PSCK Online Job Application Service**

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very disappointed</td>
<td>3</td>
<td>1.46</td>
<td>1.46</td>
</tr>
<tr>
<td>Disappointed</td>
<td>10</td>
<td>4.89</td>
<td>6.35</td>
</tr>
<tr>
<td>Slightly Satisfied</td>
<td>85</td>
<td>41.46</td>
<td>47.81</td>
</tr>
<tr>
<td>Satisfied</td>
<td>68</td>
<td>33.17</td>
<td>80.98</td>
</tr>
<tr>
<td>Very Satisfied</td>
<td>39</td>
<td>19.02</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>
9 Conclusion

This study aimed at identifying factors that can be used in e-government online services evaluation from the citizen’s point of view and carrying out evaluation on selected e-government systems. One major reason for doing evaluations of e-government online services is to take actions based on the results of the evaluation to generate change and betterment. This is actually an important fact due to the expensive failure of ISs.

The work presented in this project describes an effort to provide a set of clear and useful e-government evaluation factors that can be used to help achieve better citizen services presentation and utilisation. A critical analysis of the major current evaluation approaches revealed that although each of these approaches has its strengths and merits, none of them was custom made for developing country on the main issues that affect e-government evaluation from a citizen point of view. Hence, evaluation factors were proposed that cover the technical, economical/financial, social and delivery platform affecting citizen utilisation of e-government services.

Although it is an achievement to offer government services online, it is the desire of the Government to attract clients to consume these online services. Regular evaluation and thereby improvement of these e-services will go along way in increasing citizen’s utilisation and satisfaction in them.

10 References


Gupta M. P and Jaijit Bhattacharya, Evaluating e-government.


Telephone Interviews: An Option for Reducing Costs by Firms

Lelan, Joseph K. and Chumba, Sammy K.–(Moi University Eldoret, Kenya)

1 Abstract

The main objective of any firm or organisation is to maximise profit by reducing costs. Firms spend a lot of resources on interviews and recruitment process. Technology is changing too fast and many companies must be compelled to reduce costs by flowing with its wave. Due to advanced technology today, companies reduce costs by conducting interviews on line. In the advent of mobile phones now becoming ubiquitous, telephone interviews should become more popular and many firms should recruit new employees through it. This mode of interviewing is considered less costly and time saving yet most organisation does not use it during their interviews. The study critically examined the use of technology in interviewing and recruitment process by selected firms in Eldoret Town. Specifically, the study sought to: establish the extend to which firms in Eldoret have adopted the use of telephone interviews as a way of reducing the costs; find out whether using telephone interviews by firms reduce operation costs and identify the challenges associated with adoption of telephone interview in the organisation. The study adopted a survey design. Questionnaires, interview schedules and document analysis were used to collect information. Purposive sampling was used to select the study respondents and the three organisations; The Kenya Pipeline Company Eldoret, Raiply Company Eldoret and The Coca Cola Company Eldoret. The study used a sample size of 15 respondents; nine (9) secretaries and six (6) management staff. Qualitative and quantitative analysis of data were done critically. Analysis showed that adoption of telephone interviews is critical towards cost reduction, time saving and resource saving. However, the study found that many firms have no plan of using telephone interviews in future, yet they admit of using many resources in the recruitment process. The study recommended that telephone interviews are cost effective compared to other interview techniques. As a result, there is need for firms and other organisations to embrace telephone interview in order to reduce the costs while maximising their profits.

Key words: Costs, Interviews, Telephone, Technology

2 Introduction

The main objective of any firm or organisation is to maximise profit by reducing costs. Firms spend a lot of resources on interviews and recruitment process. Although telephone interviewing as a selection tool has been in existence for a number of years now, it was established that few firms have embraced this new technology wave. However, in developed countries more and more companies are recruiting both permanent and temporary staff using the telephone interviewing method, as well as a way to create a “talent pool” for up and coming roles. It is typically used as an additional way of sifting suitable applications, in order to create a very “short” list for face to face interviews at a later date (Flower, 2011).
Literature Review

A lot has been done on how to manage telephone interviews, but less on how it can reduce costs particularly during the recruitment process. Hoppe et al. (2000) explored on the relative costs and benefits of telephone interviews versus self-administered diaries for daily data collection. On their part Kalsbeek and Scott (1995) explored on the cost effectiveness and advance mailings and a telephone follow up survey. Telephone interviews does not benefit from the visual cues experienced by the face to face interviews (Dilman, Gallegos and Fray, 1976). They continue to suggest that the first few moments in an interview are crucial and subjects who continue past this point are almost certain to complete the interview. The completion of an interview comes at a cost to the interviewee and the interviewer too. It is further argued that sending advance letters have been shown to produce significant gains in response rates for telephone interviews/surveys but these gains do come at a cost in form of additional labour, printing and postage (Schlegelmilch and Diamantopoulos, 1991). According to Sudman (2000) reduction in cost may be accompanied by an increase in quality since interviewer is sometimes more at ease working from the comfort of his/her home or office while the respondent is more candid that higher education/she would be in a face to face interview. This too comes at some cost that can be estimated to be insignificant, but actually in the long run they will be found to be enormous (Apostol and Irvine, 2000). Someone would argue that teenagers may not be available for a telephone interview when required. This may not be true since the need for recruitment/employment supercedes individual interests, hence the firm is less likely to incur costs of booking interview time. Additional interview time and sample numbers differentially increases cell phone survey costs. Remunerations and incentives on the other hand indirectly increase telephone costs. Offering of monetary gifts may increase response rates in cell phone interviews (Bricks et al, 2007) but the effects reported have not been considerably positive (Pens 2008; Oidendick and Lambries, 2010).

Statement Problem

Conducting interview is an extremely important part of the entire recruitment process for any organisation. There are various interview techniques that most firms have embraced. The most common interview technique is face-to-face. However, a close scrutiny of this method revealed that face to face interview is expensive and less cost effective. Technology is changing too fast and many companies may be compelled to reduce costs by flowing with its wave. Due to advanced technology today, companies reduce costs by conducting interviews on line. In the advent of mobile phones now becoming ubiquitous, telephone interviews should become more popular and many firms should recruit new employees through it. This mode of interviewing is considered less costly and time saving. It also eliminates the need to have a panel of interviewers who are expensive to assemble and hire not to mention cost of time and resources wasted in planning and indirect expenses incurred during the interviews. Furthermore, employees could use phone interviews to reduce the pack of interviewees and remain with those who seem credible hence making the process fair, cheap and un-biased. However, despite telephone interview being favourable over other interview techniques, most firms still hesitate to adopt the technique.

Purpose of the Study

The study sort to find out the extent which selected firms utilise the use of telephone interviews as a way of reducing costs. The study was guided by the following objectives:

1. To establish the extent to which firms in Eldoret have adopted the use of telephone interviews as a way of reducing the costs
2. To find out whether using telephone interviews by firms reduce operation costs
3. To identify the challenges associated with adoption of telephone interview in the organisation
3 Methodology

Research Design

A survey design was used to establish the factors that contribute to firms to adopt telephone interviews over other techniques in Kenya. This allowed analysis of all relevant variables at the same time. This is because the study sought to solicit the opinions of the staff working from three organisations; the Kenya Pipeline, The Coca Cola Company and The Raiply Company in Eldoret.

Target Population, Sampling Design and Sample Size

The target population of the study comprised all the management and secretary staff working at the above named organisations. The sample size of the study was 15 staff, 6 management staff (two from each organisation) and 9 secretaries (three from each organisation). The choice of the three organisations was purposive. This is because these organisations have once used telephone interviews during the recruitment of its employees. Also management staff and secretaries were chosen purposively because managers are key in decision making and are knowledgeable on the study topic.

Data Collection Procedures /Instrument

A questionnaire was used as the main research tool for this study. The questionnaire was distributed to 15 staff members identified in the study.

Data Analysis Techniques

Descriptive statistics technique was used to analyse the quantitative data and these included frequencies, means, standard deviation and percentages. The data was presented in form of tables and graphical presentations such as pie charts and bar graphs. The use of Microsoft excels and the SPSS programme was used in analysing the data.

4 Major Findings, Conclusion and Recommendations

Adoption of Telephone Interview

The first objective of the study was to establish the extent to which firms in Eldoret have adopted the use of telephone interview as a way of reducing the costs. This objective was measured by looking at the following variables: whether the organisation has adopted telephone interview; frequency of adoption of telephone interview; reasons for using telephone interview; and telephone interviews and cost reduction.

Method of Interview Used by the Organisation

When respondents were asked to state the various methods of interview that their companies employ in the search for potential employees, it was established that there are three major methods as shown in figure. Forty two percent of the respondent said that their organisation uses face to face, 30 percent said that telephone interview is used while 28 percent said that electronic interview was is used.
Figure 1: Method of Interview Used by the Organisation

![Graph showing the percentage of interview methods used by the organisation: 30% for Electronic Interview, 42% for Face-to-face Interview, and 28% for Telephone Interview.]

**Whether the Organisation has Adopted Telephone Interview as a Way of Reducing Costs**

When respondents were asked to state whether their organisations have adopted telephone interviews; it was established that all respondents agreed that their organisations have used telephone as a method of interviewing potential employees.

**Frequency of Adoption of Telephone Interview**

Basing on the fact that all the respondents agreed that their organisations have adopted the use of telephone interviews as a way of reducing organisations costs, they were further asked to state how often their organisation utilise the interview technique. As a result, it was established that 26.7 percent of the respondent stated that telephone interview is often used, 26.6 percent said that telephone interview is sometimes used while majority (46.7%) said that telephone interview in their organisations is rarely used. Table 1 summarises the findings. As a result therefore, it is clear that despite living in a new era of technology, there is low adoption of telephone usage during an interview.

<table>
<thead>
<tr>
<th>Frequency of Adoption of Telephone Interview</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely</td>
<td>7</td>
<td>46.7</td>
</tr>
<tr>
<td>Sometimes</td>
<td>4</td>
<td>26.6</td>
</tr>
<tr>
<td>Often</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Very Often</td>
<td>1</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Reasons for Using Telephone Interview**

When respondent were asked to state reasons for using telephone interviews despite being rarely adopted (Table 1), it was established that 27.4 percent said that using phone interviews is cost effective compared to face-to-face interviews. This is because the process can reach large geographical areas without incurring any travelling expenses thus; saving reimbursement fee plus other costs that the organisation may incur. Furthermore, it was established that another reason why some organisations use telephone interviews is because it saves time (29.4%), little resources is employed (21.6%) and it is more convenient compared to other interview techniques (21.6%). Interviewing applicants on the phone provides great convenience both for the employer and the employee.
Table 2: Reasons for Using Telephone Interview

<table>
<thead>
<tr>
<th>Reasons for Using Telephone Interview</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost effective compared to face to face interview</td>
<td>14</td>
<td>27.4</td>
</tr>
<tr>
<td>Saves time</td>
<td>15</td>
<td>29.4</td>
</tr>
<tr>
<td>Little resources required</td>
<td>11</td>
<td>21.6</td>
</tr>
<tr>
<td>It is convenient</td>
<td>11</td>
<td>21.6</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>100.0</td>
</tr>
</tbody>
</table>

NB: the sample size, n=51 due to multiple response

Telephone Interviews and Cost Reduction

The second objective of the study was to find out whether using telephone interviews by firms reduce operation costs. This was measured by looking at five variables. They include: telephone interviews are simpler to arrange, and the process itself takes much less time than face-to-face interview sessions; when using this method as an initial screening process, lack of visual contact at the telephone interview stage allows for total focus on the applicant’s verbal responses; telephone interviewing also cuts costs when candidates live far away; telephone interview is an ideal way to assess a candidate’s telephone manner; and each telephone interview being tailored to each individual requirement, and specific competency based questions being included.

Due to the importance of telephone interviews and cost reduction, Likert scale was used for answering (1 = strongly disagree, 2 = Disagree, 3 = Not sure, 4 = Agree, 5 = strongly agree). Thus, this question was analysed by using the mean to identify the rank of each attribute. Table 3 has the summary of the findings.

As a result, it was established that telephone interviews being simpler to arrange, and the process itself takes much less time than face-to-face interview sessions was ranked first (3.96); lack of visual contact at the telephone interview stage allows for total focus on the applicant’s verbal responses was ranked second (3.92); telephone interviewing also cutting costs when candidates live far away was ranked third (3.88); telephone interview being an ideal way to assess a candidate’s telephone manner was ranked fourth (3.71); while telephone interview can be tailored to each individual requirement, and specific competency based questions can be included was ranked the least with a mean of 3.67 from the Likert scale.

According to the respondents, telephone interviews are simpler to arrange and the process itself takes much less time than face to face interview sessions. This is because when an organisation plans to use telephone interviews, it alerts all participants as preparing interview schedules in time. As a result, time will be saved because the duration of interview taken on phone is shorter than when in face-to-face interview. As a result, much of the time which could have been spent on face to face interview is saved and bumped into other productive activities in the organisation.

It was also established that respondents agreed to the statement that lack of visual contact at the telephone interview stage allows for total focus on the applicant’s verbal responses. This is attested by the statement having a mean of 3.92 which stands for “agree” (Msc.>3.50). While face to face meetings should always be included at subsequent stages in the selection process, it is true that the lack of visual contact at the telephone interview stage allows for total focus on the applicant’s verbal responses. This is a great opportunity to discuss competencies and strengths of an applicant, without being distracted by visual and body language. The process is consistent for every applicant, and so helps eliminate discrimination in the process.

Furthermore, it was established that telephone interview cuts costs when candidates live far away since most businesses reimburse interviewee travel expenses. Using the telephone to screen
out unsuitable candidates can greatly reduce these costs. In addition, the process can reach large geographical areas without incurring any travelling expenses; therefore, participants can be recruited for throughout the world as time differences can be factored into the process with ease. This aids not only the organisation that is recruiting but also the applicants since as the interview can be conducted in the comfort of their own home, travelling time and expenses are alleviated. In addition, employed applicants do not need to take off as much time as a telephone interview can often be factored into lunch breaks, evenings or even weekends.

It was also established that telephone interview is an ideal way to assess a candidate’s telephone manner (3.71). This is particularly helpful if the job requires telephone communication skills or is heavily customer-service based. Finally, the study also established each telephone interview can be tailored to each individual requirement, and specific competency based questions can be included (3.67), thus probing relevant experience and suitability for the role. This is also a good way of assessing the candidate’s ability to ‘think on their feet’ as usually, there is nothing that the candidate can prepare for. In addition, it can be used to test verbal communication skills and telephone techniques.

From Table 3, it can be deduced that respondents were in agreement with all the statements under telephone interviews and cost reduction. This is attested by the statements having means of 3.96-3.63 respectively which stands for ‘agree’ from the Likert scale (Msc.>3.50).

### Table 3: Telephone Interviews and Cost Reduction

<table>
<thead>
<tr>
<th>Telephone Interviews and Cost Reduction</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone interviews are simpler to arrange, and the process itself takes much less time than face-to-face interview sessions</td>
<td>3.96</td>
<td>1.10</td>
<td>1</td>
</tr>
<tr>
<td>Lack of visual contact at the Telephone interview stage allows for total focus on the applicant’s verbal responses</td>
<td>3.92</td>
<td>0.98</td>
<td>2</td>
</tr>
<tr>
<td>Telephone interview cuts costs when candidates live far away</td>
<td>3.88</td>
<td>1.24</td>
<td>3</td>
</tr>
<tr>
<td>Telephone interview is an ideal way to assess a candidate’s telephone manner</td>
<td>3.71</td>
<td>1.10</td>
<td>4</td>
</tr>
<tr>
<td>Telephone interview can be tailored to each individual requirement, and specific competency based questions can be included</td>
<td>3.67</td>
<td>1.35</td>
<td>5</td>
</tr>
</tbody>
</table>

### Challenges Associated with Adoption of Telephone Interview

The third objective of the study was to identify the challenges associated with adoption of telephone interview in the organisation. This was measured by looking at the following variables: Candidates may be unfamiliar with the format or uncomfortable using the telephone; it is difficult to make a thorough assessment of a candidate over the telephone; telephone interview candidates learn less about the firm than those who visit your premises and meet potential colleagues in person; high rate of faking and impersonification and inadequate clarification on some pertinent issues due to limited time on phone.

As a result, it was established that candidates being unfamiliar with the format or uncomfortable using the telephone was ranked first (3.88); being difficult to make a thorough assessment of a candidate over the telephone was ranked second (3.72); telephone interview candidates learning less about the firm than those who visit your premises and meet potential colleagues in person was ranked third (3.63); high rate of faking and impersonification was ranked fourth (3.61) while inadequate clarification on some pertinent issues due to limited time on phone was ranked the least with a mean of 3.57 from the Likert scale.
According to the respondents, telephone interview is sometimes challenging because interviewee may be unfamiliar with the format of interview. As a result, this may make the interview to last longer than expected thus becoming expensive. The interviewee may also have the phobia of answering questions over the phone which leads to the subject becoming more uncomfortable. This therefore may enable the participant to unleash wrong impression even if higher education/she might be the relevant person that the company requires.

It was also established that using telephone interview may pose difficulties in making a thorough assessment of the participant over the telephone. Through phone, the interviewer may not be able to identify the non-verbal or body language that the participant may be revealing which explains a lot vis-à-vis his/her character. It was also established that through telephone interview candidates learn less about the firm than those who visit the premises and meet potential colleagues in person. The on-site experience helps candidates decide whether they wish to pursue the interviewing process. It is important to remember that the recruitment process works both ways.

Furthermore, respondents also argued that impersonification and high rate of faking may be evident in telephone interviews than face-to-face interviews. For instance, an interviewee may decide to hire someone who is more skilled and experienced in handling interview questions which culminates in giving false impression to the organisation. Another challenge that may accompany telephone interview is the inadequate clarification on some pertinent issues due to limited time on phone. Some questions may require in-depth clarification depending on the approach that the interview adopt when answering such questions. Thus, the employer at the end of the day may lack the necessary information for absorbing such participants.

A close scrutiny of the above findings suggests that employees were in agreement of all the statements under challenges associated with adoption of telephone interview. This is attested by the statements having means of 3.88-3.57 respectively which stands for ‘agree’ from the Likert scale (Msc.>3.50).

<table>
<thead>
<tr>
<th>Challenges Associated with Adoption of Telephone Interview</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidates may be unfamiliar with the format or uncomfortable using the telephone</td>
<td>3.88</td>
<td>1.17</td>
<td>1</td>
</tr>
<tr>
<td>It is difficult to make a thorough assessment of a candidate over the telephone</td>
<td>3.72</td>
<td>1.05</td>
<td>2</td>
</tr>
<tr>
<td>Telephone interview candidates learn less about the firm than those who visit your premises and meet potential colleagues in person</td>
<td>3.63</td>
<td>1.03</td>
<td>3</td>
</tr>
<tr>
<td>High rate of faking and impersonification</td>
<td>3.61</td>
<td>1.01</td>
<td>4</td>
</tr>
<tr>
<td>Inadequate clarification on some pertinent issues due to limited time on phone</td>
<td>3.57</td>
<td>1.18</td>
<td>5</td>
</tr>
</tbody>
</table>

**Whether the Organisation Intend to Continue Using Telephone Interview in Future**

From the study findings, it was established that adoption of telephone interviews by various firms reduces the operation costs. However, when respondents were asked to state whether they will continue using telephone interviews in future, it was established that majority (56%) said that they have no intention of using telephone interview in future while 44 percent agreed that they will embrace telephone interviews in future. According to those who denied using telephone in future said that telephone interview attracts a lot of incompetent pool of employees in an organisation.
5 Summary, Conclusion and Recommendations

The first objective of the study was to establish the extent to which firms in Eldoret have adopted the use of telephone interview as a way of reducing the costs. As a result, it was established that 42 percent of the respondent said that their organisation uses face to face, 30 percent said that telephone interview is used while 28 percent said that their organisation uses electronic interviews. In addition, it was established that all the three selected organisations have adopted the telephone interviews.

In relation to the frequency of usage of telephone interviews by the three selected firms, it was established that 26.7 percent of the respondent stated that telephone interview is often used, 26.6 percent said that telephone interview is sometimes used while majority (46.7%) said that telephone interview in their organisations is rarely used. In relation to the reasons for adoption of telephone interview, it was established that 27.4 percent said that using phone interviews is cost effective compared to face-to-face interviews. Furthermore, it was established that other reasons why the organisations use telephone interviews is because it saves time (29.4%), little resources is employed (21.6%) and it is more convenient compared to other interview techniques (21.6%).

The second objective of the study was to find out whether using telephone interviews by firms reduce operation costs. As a result, it was established that telephone interviews are simpler to arrange, and the process itself takes much less time than face-to-face interview sessions (3.96); lack of visual contact at the telephone interview stage allows for total focus on the applicant’s verbal responses (3.92); telephone interviewing cuts the costs particularly when the candidate live far away (3.88); telephone interview is an ideal way to assess a candidate’s telephone manner (3.71); and that telephone interview can be tailored to each individual requirement, and specific competency based questions can be included (3.67).

The third objective of the study was to identify the challenges associated with adoption of telephone interview in the organisation. As a result, it was established that candidates are unfamiliar with the format or uncomfortable using the telephone (3.88); it is difficult to make a thorough assessment of a candidate over the telephone (3.72); telephone interview candidates learn less about the firm than those who visit your premises and meet potential colleagues in person (3.63); high rate of faking and impersonification (3.61) and inadequate clarification on some pertinent issues due to limited time on phone (3.57).

Conclusion

From the study findings there is beyond doubt that adoption of telephone interview reduce cost, saves time and resources that firms may allocate during face to face interviews. Despite the fact that adoption of telephone interviews by various firms reduces the operation costs, it was however established that still majority said that they have no intention of using telephone interview in future.
**Recommendations**

The study made the following recommendations:

1. Telephone interviews are cost effective compared to other interview techniques. As a result, there is need for firms and other organisations to embrace telephone interview in order to reduce the costs while maximising their profits.

2. When carrying out telephone interviews, there is need for the management to ensure that interviewees have adequate information on when the interview will commence. This will enable them to be composed thus, avoid time wasting while reducing the costs.

6 References


Flower D, recruitment process outsourcing company PPS. (blog.ppsworks.com: January, 2011.) http://wiki.answers.com/Q/Advantages_of_telephone_interview#ixzz1Tf608Wm


The Role of ICT in the Growth and Development of the Tourism Industry in Kenya

Othoche, Bertha – (Pwani University College, Kenya)

1 Abstract

This paper looks at the development of the tourism industry in Kenya in relation to the application of ICT. Tourism industry is one of the leading sectors in Kenya. The industry contributes directly and indirectly to the economic development of Kenya by creating job opportunities and generating revenue. The development of the tourism industry therefore translates into the development of the whole country hence the continent of Africa. The industry however has negative aspects on the environment which may include environmental degradation. ICT can therefore play an important role in monitoring the trend of tourism activities so as to make it sustainable. It can be important in monitoring tourism traffic and general impact, advertisement of the tourism product and booking for hotel rooms or conference tourism venues. It can become handy in monitoring security trends in the tourism sector for appropriate planning. Tourists or their agents can easily locate tourist sites and resorts and book facilities according to taste. With increased use of ICT in the tourism industry, management becomes easy and customers will have access to information within a record of time. Forming a web for tourism activities through ICT will promote development and economic growth.

Key words: Development, Growth, GIS, ICT

2 Introduction

Tourism is one of the leading sectors in the Kenyan economy and indeed second in rank in terms of contribution to the country’s economic growth. Jolliffe (2000), in her book Tea and Tourism: Tourists, Traditions and Transformations, argues that Kenyan tourism has not developed on its conservation of natural resources, though “beach tourism, eco-tourism, cultural tourism, sports tourism all form part of the portfolio”. During the 1990s, the number of tourists travelling to Kenya decreased, partly due to the well publicised murders of several tourists. However, tourism in Kenya has been the leading source of foreign exchange since 1997, when it overtook coffee, and the trend continued, with the exception of 1997–1998 (Jolliffe 2000). The number of tourists visiting the country has been on the increase though with downward trends in the election periods. The source regions for the tourism sector in Kenya are varied as given in the figures. Kenya recorded the highest number of tourists’ arrivals ever at 1 095 945 tourists as at 31st December, 2010 (MOT 2010). This was a 15 percent growth compared to the 952 481 experienced in 2009. “This performance is impressive and is optimistic to achieving Kenya’s vision target of two million international tourists by 2012. The sector has earned Kshs 73.68 billion in terms of revenue earnings within the same period. This is the highest tourist revenue ever recorded and it represents an impressive growth of revenue by 18 percent compared to the 2009 revenues, (MOT 2010). This growth is a challenge to the industry as it poses several challenges to the tourism sector and key players such as the Ministry
of Tourism and the Kenya Tourism Board. The stakeholders must establish mechanisms to ensure the positive growth in the tourism sector is in line with sustainable development. ICT can play an important role by assisting in organisation and management of the industry and monitoring trends hence ensuring that sound management practices are put in place. The targeted number of tourists standing at two million will require efficiency in all sectors starting with the tourism travel, accommodation and tourism resources. There will also be need to monitor and project future trends in the tourism industry as well as their impact so that strategies are put in place to manage them. All these can comfortably be done using various aspects of ICT. Some sectors in the tourism industry have embraced ICT in various departments, while others are still establishing infrastructure required to fully benefit from the ICT. There is positive attitude towards the adoption of ICT though the high initial cost involved and the length of time required for human resource development inhibits faster adoption of ICT in some sectors.

Information and communications technology (ICT) is often used as an extended synonym for Information Technology (IT), but is usually a more general term that stresses the role of Unified Communications and the integration of Telecommunications (telephone lines and wireless signals), intelligent building management systems and audio-visual systems in modern information technology. ICT consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middleware as well as necessary software. Indeed ICT consists of IT as well as telephony, broadcast media, all types of audio and video processing and transmission and network based control and monitoring functions. Today ICT is also used to refer to the merging (convergence) of audio-visual and telephone networks with computer networks through a single cabling or link system. “ICT” is used as a general term for all kinds of technologies which enable users to create access and manipulate information. ICT is therefore a combination of information technology and communications technology.

The tourism statistics shown below indicate and confirm how tourism is an important sector in the Kenyan economy that cannot be taken for granted. It is with this in mind that the current paper looks at the role of ICT in tourism development in Kenya and hence with trickle down effects that would translate into the development of the entire continent.
Table 1: Tourist Arrivals and Departures 1995 – 2009

<table>
<thead>
<tr>
<th>Year/ Quarter</th>
<th>BUSINESS VISITORS in Other Holiday</th>
<th>OTHER BUSINESS VISITORS in Other Holiday</th>
<th>TOTAL BUSINESS VISITORS in Other Holiday</th>
<th>BUSINESS VISITORS in Other Holiday</th>
<th>TOTAL BUSINESS VISITORS in Other Holiday</th>
<th>TOTAL BUSINESS VISITORS in Other Holiday</th>
<th>BUSINESS VISITORS in Other Holiday</th>
<th>TOTAL BUSINESS VISITORS in Other Holiday</th>
<th>TOTAL BUSINESS VISITORS in Other Holiday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>795.7</td>
<td>100.5</td>
<td>55.8</td>
<td>21.6</td>
<td>973.6</td>
<td>785.7</td>
<td>99.2</td>
<td>59.5</td>
<td>21.3</td>
</tr>
<tr>
<td>1996</td>
<td>820.8</td>
<td>103.7</td>
<td>56.2</td>
<td>22.3</td>
<td>1,003.0</td>
<td>800.5</td>
<td>101.1</td>
<td>57.5</td>
<td>21.7</td>
</tr>
<tr>
<td>1997</td>
<td>804.8</td>
<td>101.7</td>
<td>72.3</td>
<td>21.8</td>
<td>1,000.6</td>
<td>744.3</td>
<td>94.0</td>
<td>66.2</td>
<td>20.2</td>
</tr>
<tr>
<td>1998</td>
<td>686.9</td>
<td>86.8</td>
<td>101.9</td>
<td>18.7</td>
<td>894.3</td>
<td>672.9</td>
<td>85.0</td>
<td>91.9</td>
<td>18.3</td>
</tr>
<tr>
<td>1999</td>
<td>746.9</td>
<td>94.4</td>
<td>107.4</td>
<td>20.6</td>
<td>969.3</td>
<td>746.5</td>
<td>93.7</td>
<td>106.4</td>
<td>21.8</td>
</tr>
<tr>
<td>2000</td>
<td>778.2</td>
<td>98.3</td>
<td>138.5</td>
<td>21.5</td>
<td>1,036.5</td>
<td>772.2</td>
<td>97.0</td>
<td>103.5</td>
<td>22.5</td>
</tr>
<tr>
<td>2001</td>
<td>728.8</td>
<td>92.1</td>
<td>152.6</td>
<td>20.1</td>
<td>993.6</td>
<td>742.0</td>
<td>93.2</td>
<td>134.1</td>
<td>21.6</td>
</tr>
<tr>
<td>2002</td>
<td>732.6</td>
<td>86.6</td>
<td>163.3</td>
<td>19.0</td>
<td>1,001.5</td>
<td>744.6</td>
<td>93.4</td>
<td>153.6</td>
<td>21.7</td>
</tr>
<tr>
<td>2003</td>
<td>684.0</td>
<td>182.1</td>
<td>219.1</td>
<td>61.0</td>
<td>1,146.2</td>
<td>606.6</td>
<td>164.1</td>
<td>198.4</td>
<td>53.8</td>
</tr>
<tr>
<td>2004</td>
<td>885.6</td>
<td>246.4</td>
<td>162.2</td>
<td>66.5</td>
<td>1,360.7</td>
<td>856.2</td>
<td>255.8</td>
<td>147.9</td>
<td>60.3</td>
</tr>
<tr>
<td>2005</td>
<td>1,063.2</td>
<td>206.1</td>
<td>79.8</td>
<td>129.9</td>
<td>1,479.0</td>
<td>1,027.1</td>
<td>201.6</td>
<td>116.6</td>
<td>160.7</td>
</tr>
<tr>
<td>2006</td>
<td>1,087.5</td>
<td>226.2</td>
<td>137.2</td>
<td>149.8</td>
<td>1,600.7</td>
<td>1,077.9</td>
<td>219.5</td>
<td>116.8</td>
<td>164.1</td>
</tr>
<tr>
<td>2007</td>
<td>1,278.5</td>
<td>242.2</td>
<td>130.9</td>
<td>165.2</td>
<td>1,816.8</td>
<td>1,232.0</td>
<td>232.3</td>
<td>124.6</td>
<td>183.3</td>
</tr>
<tr>
<td>2008</td>
<td>936.1</td>
<td>109.4</td>
<td>62.0</td>
<td>95.8</td>
<td>1,203.2</td>
<td>891.7</td>
<td>108.9</td>
<td>65.2</td>
<td>77.3</td>
</tr>
<tr>
<td>2009</td>
<td>1,061.2</td>
<td>180.6</td>
<td>98.4</td>
<td>150.2</td>
<td>1,490.4</td>
<td>1,064.9</td>
<td>169.3</td>
<td>97.4</td>
<td>136.6</td>
</tr>
</tbody>
</table>

Source: MOT 2010

3 Objectives of the Study

General Objective

The general objective is to investigate the significance of ICT in the development of the tourism sector in Kenya.

Specific Objectives

1. To highlight the level of integration and the role of ICT in the tourism sector in Kenya.
2. To identify challenges encountered in integration of ICT in the tourism sector in Kenya.
3. To highlight the strategies for improved integration of ICT in the tourism sector in Kenya for sustained growth and development.

4 Methodology

A number of studies have cited the significance of tourism in the development of the various economies of the world. Some countries have relied entirely on the tourism sector while others have tried to supplement it with income from other sectors like agriculture. Kenya’s economic growth is closely associated with the development of the tourism industry. In Kenya, tourism generates both direct and indirect employment which is important in overall development.

The area of study is Kenya, a country that has great wealth to support the tourism sector. The country has a number of game parks and reserves, the beautiful beaches, historical and
archaeological sites and monuments as well as the rich culture and varied environmental conditions to suit tourists from all walks of life. Figure two gives some of the tourism sites in Kenya. The study identified Kenya as a country that should embrace ICT because of its tourist resources.

Figure 2: Tourist Sites in Kenya

5 Research Design

In order to come up with this paper, investigation had to be carried out involving various stakeholders in the tourism sector. The stakeholders formed the research population and included officials in different tourism sub-sectors. Purposeful sampling was used to identify the stakeholders who were then interviewed. The interviews generated data on issues related to ICT integration in the tourism sector.

Sampling Procedures

The study sampled stakeholders in the population. Purposeful sampling was used to identify the stakeholders. Among the interviewees were managers of hotels (2), Tour Operators (2), Ministry of Tourism Officials (2), Tourists (2) and Officers from tourist sites such as Game and Marine Parks, Game and Marine Reserves (2).

Data Collection Procedures

Both secondary and primary sources of data were used. Primary sources included observation and interviews on ICT integration in the tourism sector. Primary sources generated primary data acquired during the study period. Secondary sources of data included literature available in various forms. This generated secondary data used to supplement the primary data gathered. So far the study relied heavily on secondary data sources which gave reliable information on ICT integration.
in tourism hence had just to be confirmed through interviews with relevant stakeholders. The Internet search engines such Google had good literature covering ICT and Tourism.

**Interview**

Interview method was used to gather information from the stakeholders. Face-to-face interviews involved stakeholders who were at a close range while telephone interviews involved stakeholders located distances apart.

**Data Generated**

The interviews generated data on the following areas:

1. The level of integration of ICT in the tourism sector in Kenya.
2. The role of ICT in the growth of the tourism sector in Kenya.

**6 Data Analysis and Interpretation**

This was done using descriptive statistics, interpreted and displayed accordingly. Maps, tables and graphs are used to display various aspects of ICT and the tourism sector in Kenya.

**7 Results on the Integration of ICT in the Tourism Sector**

From the interviews carried out, it has been established that ICT is increasingly being used in the tourism industry. The stakeholder interviewed stated that ICT is applied in different sectors according to the type of enterprise or nature of operation. There is great diversity of the stakeholders in the tourism industry.

**The ICT Situation in Kenya**

Kenya’s ICT industry is growing at a promising rate. The Government commitment has been seen in an attempt to encourage positive growth in all sectors and especially the tourism industry. Kenya is indeed shooting for 10 percent or higher in economic growth by 2012, (GoK 2010). The ICT sector is expected to play a crucial role in achieving this growth. The Government appreciates the need to address both the supply side of ICT driven business as well as the demand side. This is a challenge to stakeholders who should create enabling environment to enhance consumption of ICT products in Kenya.

The Government has tried to invest in the development of an enabling environment with modern communication infrastructure. The completion of the optical undersea fibre cable in 2009 to connect Kenya to the rest of the world is to address the critical infrastructural requirement for the development of ICT business. There is also a national backbone and terrestrial cable laying project to connect and open up rural Kenya to ICT business. Kenya provides investment opportunities in the ICT sector targeting both local and export markets. Communications Commission of Kenya (CCK) provides regulatory framework, while the well trained ICT experts are capable of providing services to customers and investors. There is also a diversified experience in the ICT sector in Kenya. Kenya is a member of the International Telecommunications Union, ITU and other international conventions and standards.

There are currently more than 13 million subscribers in the country and only 3 operators, (ICT Board, 2010). There is investment in the East African submarine Cable to enable ICT be extended to the interior parts of the region especially the rural areas. The Kenya ICT Board was established as a state corporation in 2007. The Kenya ICT Board’s mission is to champion and actively enable Kenya to adopt and exploit ICT, through promotion of partnerships, investments
and infrastructure growth for socio economic enrichment. Its vision is to make Kenya a top ten global ICT hub by 2030, (GoK Vision 2030). Under the umbrella of the ICT Board the number of Kenyans using Internet services has grown to 8 million. This is in line with Kenya’s Vision 2030 in which Kenya aims to become a top-3 outsourcing location in Africa by 2015. In general Kenyans are therefore urged to embrace ICT, (Odero B. 2010).

**Stakeholders in the Tourism Industry**

1. The Ministry of Tourism, (MOT).

Tourism Associations, (TA) such as Kenya Association of Tour Operators, (KATO), Kenya Association of Travel Agents, (KATA), the Ecotourism Society of Kenya and Kenya Association of Hotel keepers and Caterers.

2. The tourists’ themselves.
3. The Airlines such as Kenya Airways.

**ICT Tools and Social Sites Embraced by the Tourism Industry**

ICT tools which are continuously used in the tourism industry have been identified. There is also great diversity in the number of ICT tools, gadgets, and social sites that are gaining recognition in the tourism industry. Examples include:

1. The Internet (Email, Websites and other search engines such as Yahoo, Google among others).
2. Instant messaging (IM).
3. Chat rooms and social networking websites such as Facebook and Twitter.
4. Skype - is a Software Application that allows users to make calls over the Internet. Calls to other users within the Skype service are free, while calls to both traditional landline telephones and mobile phones can be made for a fee using a debit-based user account system. Skype has also become popular for its additional features which include instant messaging, file transfer and video conferencing. It has been banned in some sectors due to inappropriate usage of resources, excessive bandwidth usage, and security concerns.
5. Iphones – This is a line of Internet- and Multimedia enabled Smartphones. An iPhone can function as a Video Camera, a Camera Phone, can send Texts and receive Visual Voice Mail. It also has a Portable Media Player and an Internet client with email and Web Browsing Capabilities. Capabilities. There are four Generations of iPhone models, (Honan 2007).
6. Cellular phones.
7. GPS and GIS.

**Level of Integration and the Role of ICT in the Tourism Industry in Kenya**

From the interviews conducted it emerged that most stakeholders use certain ICT tools more than others. The figure below gives the results if the interviews on integration of ICT in the tourism industry.
Table 2: Level of Sectoral Integration of ICT in the Tourism Industry

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>CELLULAR PHONE</th>
<th>GPS AND GIS</th>
<th>iPHONES</th>
<th>INTERNET</th>
<th>SOCIAL SITES</th>
<th>COMPUTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOT</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>KWS</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>KTB</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>TA</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>TOURISTS</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>AIRLINES</td>
<td>High</td>
<td>Varied</td>
<td>Varied</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

Interpretation of the above figure is as follows:

1. **High** means that there is a high level of use of the tools in that particular sector. As seen above the use of cellular phones, the Internet, social sites and computers has been highly integrated in the tourism industry. The key players in the sectors identified have almost on average use of such tools.

2. **Varied** means, different key players in the sectors identified have embraced the technology at different levels. GPS and GIS are used mainly by organisations and tourists from well developed areas who have the skills and technological capacity to manipulate the gadgets. This means that not all players can embrace technologies that require specialised skills and which would mean serving only a particular class of clients.

3. Integration of ICT in the tourism industry has taken place and followed specific patterns. The following discussion highlights the various ways in which ICT integration in the tourism industry has progressed.

**Establishment of Data Bases**

Most tourists enterprises make use of statistics and hence employ statisticians and Data Base Managers (DBM) who then collect, and analyse the data hence look for patterns that explain the trend in the tourism industry. This done by making use of ICT tools such as the internet that avails data, manipulation techniques and tools and storage mechanisms. This data is then availed to stakeholders who can then at a click of the button use it in decision making in the tourism industry. Visitors to national parks and game reserves are easily monitored using ICT and related technology and this is significant in management and in laying down marketing strategies for development. The tourism industry has data bases for monitoring development.

**Use of GPS and GIS**

Few organisations in the tourism sector have invested in Geographical Information Systems and GPS. GIS can be regarded as providing a toolbox of techniques and technologies of wide applicability to the achievement of sustainable tourism development. People the world over nowadays just do not take holiday trip for rest and recreation. They like to educate and enlighten themselves. Therefore, all countries try to tap their tourism potential not only to entertain visitors but also to highlight their culture and heritage in their natural surroundings, at the same time ensuring that the environment is not seriously affected by man made activities. Web based GIS provide ideal platforms for the convergence of tourist information and their analysis in relation to population settlements, surrounding social conditions, spatial characteristics, location and the natural environment. They are highly suitable for analysing spatial data, revealing trends and interrelationships that would be more difficult to discover in tabular format. Moreover, GIS allows policy makers to easily visualise the problems, in relation to existing trends and the natural environment and so more effectively target resources (Mejia et al 2010; Melezewski J. 1999, Mc Adam 1999, Bahare G. and Alan …)
These data management tools form part of the ICT system that enhances the growth and development in the tourism sector. GIS is used in location of tourist resources according to taste, identifying and layering resources for effective management and use. Conflict prone areas can easily be identified using GIS and Computer Aided Cartography (CAC) hence can be useful in directing tourism traffic at different times of the year or season. Monitoring tourism traffic and tourism impact are important in the general management of the industry. These tools can also be used in monitoring changes in biodiversity characteristics, distribution of selected endangered species, and climate conditions since all these aspects of the physical environment affect the tourism industry directly or indirectly. The following is a summary of how GIS can enhance tourism development and promote greater economic growth and development:

Summary of Advantages of GIS for the Tourists include:
1. Visualisation of tourist sites through digital images or videos.
2. Valuable information on tourist locations.
3. Selective information like route planning, accommodation, cultural events, special attractions among others.
4. Easily accessible information over the Internet.
5. Interactive maps that respond to user queries.

Summary of Advantages of GIS to development authorities:
1. Planning
2. Database management
3. Data updating
4. Planning for new site selections

Summary of the benefit of application of GIS in urban tourism development:
1. Faster decision-making
2. Efficiency increase
3. Accuracy improvement
4. Efficient asset management
5. Better resource allocation

E-Conferences in Tourism
Through the Internet it is now possible to conduct e-conferences and this enhances decision making and management practices in an organisation. The tourism industry has and is being urged to embrace this technology since it reduces costs and distance decay effects.

Marketing and Booking Online
Marketing of tourist destinations and airline bookings is now done online by the stakeholders in tourism industry. Marketing of tourist resorts takes a significant portion of the budgets of tourism related establishments in the world today. Tourism establishment in Kenya have taken up the challenge and are now marketing online in order to capture the attention of tourists from all walks of life (Ghosh 1998). This needs to be intensified and diversified. Online booking is now common in all parts of the world. In Kenya key stakeholders in the airline industry such as Kenya Airways have invested in this area and tourists, both domestic and international can now comfortably book for air transport or arrange with tourists resort and hotels of whatever class of facilities they require. Airline reservations involve Automated Airline Systems (AAS) and Customer-Facing Customer Reservations System, (CCRS). Marketing of unique health facilities and resources as well as small enterprises in the tourism or eco-tourism sector is being done through the internet. Sporting activities and game drives are associated with tourist resorts hence marketed accordingly. Companies use several different marketing techniques to attract visitors. Even game reserves and
parks such as Maasai Mara have gone online and potential tourists are encouraged to book online. Collaboration in marketing is being encouraged (Ghosh, 1998)

**Enhanced Communication Pattern**

Most tourist establishment can now communicate very fast and save on time and cost hence beating the deadlines and reducing the distance decay effect. Information is now available almost everywhere and stakeholders are able to reap the benefits of ICT. It is important for stakeholders in the tourism industry to embrace new technology for greater benefits. The move by Kenya Airways to join Twitter is welcome as it will enhance communication flow and feedback mechanisms, (Wanjiku, 2010). The Anti-Competition regulations will affect communication but soon there will be a level playing ground for the stakeholders.

**Advertising the Tourism Product**

This goes hand in hand with marketing. It is mostly done through the Internet and other social sites. Most tourist agents use social sites to attract clients’ attention. The key players in the tourism industry in Kenya have been investing in advertisement industry though small scale enterprises have not been able to do so. Stakeholders such as Kenya Airways and Pollman’s Tours and Safaris advertise through the Internet and give choice to customers in terms of lodges and resorts available and the special vehicles offered. It is important to note that online advertorial and announcements are becoming very popular throughout the world. Visual aspects and quality of photos displayed are important in enticing the potential visitors. Advertising the tourism product also takes into consideration the changing seasons hence photos displayed will march every season. Most tourist establishments also engage in collaborative ventures which are quite good for diversity in the tourist source regions. The Kenyan tourism industry is advertising the products and there are always unique individuals and resources used to lure visitors to come to our country. Promotion of tourism therefore involves a variety of strategies at different times or seasons (Hannah and Miller, 1997).

The above areas sited are among the many ways in which the tourism industry has embraced ICT in Kenya. It should be noted that the level of integrated depends on various factors ranging from socio-economic to environmental.

**Challenges Associated with the Integration of ICT in Tourism Industry in Kenya**

Though communication technology has radically transformed the tourism industry, some limitations remain. Communication technology systems sometimes require considerable financial investments. High costs incurred in initial installation of facilities and gadgets are a hindrance to stakeholders with limited financial base, (Muteti J. 2005).

1. Tourism marketing strategies are quite varied and cost involved is very high.
2. High cost of training hence inadequate human resource capacity.
3. Inadequate support infrastructure such as electricity and computers in Kenya.
4. High level of competition.
5. Insecurity associated with the use of Internet and related aspects such as the email and tapping of confidential information.
6. Misuse of social sites to discredit competitors.
7. Lack of managerial training and experience, (King and McGrath 2002).
8. Inadequate education and skills, (King and McGrath 2002).
9. Lack of credit.
11. Problems related to technological change have disadvantaged the use of ICT by the less economically empowered individuals in Kenya. In most of the African nations, Kenya
inclusive, the challenge of connecting indigenous small enterprises with foreign investors and speeding up technological upgrading still persists (Muteti, 2005). There is digital divide between the rural and urban Kenya. With no power supply in most of the rural areas, it is next to impossible to have Internet connectivity and access to information and networks that are core in any enterprise. Thus technological change, though meant to bring about economic change even among the rural lot, does not appear to answer to the plight of the rural entrepreneurs.

12. Poor infrastructures pose a major challenge to small enterprises in Kenya.
13. Lack of sufficient market information poses a great challenge to small enterprises in the tourism industry. Despite the vast amount of trade-related information available and the possibility of accessing national and international databases, many small enterprises continue to rely heavily on private or even physical contacts for market-related information. This is due to inability to interpret the statistical data (Muteti, 2005) and poor connectivity.

The Strategies and Opportunities for Improved Integration of ICT in the Tourism Sector in Kenya for Sustained Growth and Development

1. Increase networking opportunities: With connectivity being enhanced (by connecting Kenya globally through Fibre Optic Cable project) there is renewed hope for all players in the tourism industry.
2. Software development, network security, and Internet operations.
3. Enhanced collaboration among tourist agents or tour operators operating in tourist destinations and tourist source regions.
4. Forming a web of tourism activities through ICT to promote development and economic activities.
5. Establishment of tourism missions globally.
6. Reviewing existing digital network for further development.
7. Embracing and supporting innovations including fibre optics to enhance communication among the stakeholders.

8 Recommendations

The Government and key players in the industry should support development of infrastructure that will promote and enhance integration of ICT in all sectors of the tourism industry.

1. Empower small scale entrepreneurs so that they can embrace ICT in their undertakings. This can be done by providing low cost loaning facilities on a long term basis.
2. Enhance human resource development in the sector.
3. Monitor security matters related to the use of ICT.
4. Establish village ICT centres - the problem of access to information may be attributed to the inadequacy of support institutions. There is therefore need for a supportive policy to encourage the establishment of documentation centres and information networks to provide information at an affordable price.
5. Establish proper regulatory policies that caters for both small scale and well-established enterprises.
6. Further, research and development institutions that are publicly funded should be established.

9 Conclusion

Kenya as a country has shown a tremendous improvement in the integration of ICT in the tourism industry. Most stakeholders in the industry have embraced ICT and are benefiting from the services
given. There are however challenges that should be addressed. The world is now a global village hence Kenya and the tourism industry in particular should not be left behind.

10 References


Wanjiku R. (2010): Anti Corruption Regulations to Affect Whole ICT Sector

1 Abstract

Evidence on the role of ICT investment is primarily available at the Macroeconomic level, for instance from Colecchia and Schreyer (2001) and Van Ark et al (2002a). Both studies show that ICT has been a very dynamic area of investment, due to the steep decline in ICT prices which has encouraged investment in ICT, at times shifting investment away from other assets. The emergence of ICT has really contributed in the economic growth of African countries. ICT is used by firms in the managing of the changing demand and to innovate. Users of ICT often help make their investments more valuable through their own experimentation and innovation, for example the introduction of new processes, products and applications. ICT helps in re-inventing business processes and developing new applications. However, ICT is no panacea, but a technology that can be made to work to enhance business performance. This implies that firms that are able to extract the benefits from ICT are those that have already successfully innovated, for instance changed their products and processes. Moreover, ICT requires many other changes to make it work.

The paper confirms that in order for stakeholders to benefit from the ICT, there should be the right ICT policy enacted in regard to ICT diffusion and economic growth.

Key words: ICT, innovation, economic growth and ICT policy

2 Introduction

For more than a decade, ICTs (ICT comprises of the hardware, software, networks, and media for the collection, storage, processing, transmission and presentation of information (data, voice, text, images) as well as related services. Both traditional technologies (such as TV, radio and telephones) and newer technologies (such as the Internet and computers) are usually included in the concept of ICT infrastructure] have been attributed a key role in both economic growth and poverty reduction. They increase efficiency, provide access to new markets or services, create new opportunities for income generation and give poor people a voice. And while considerable improvements have been achieved in Africa with respect to certain aspects of ICT – including the spread of mobile telephony and an increasing number of national ICT strategies as well as regional initiatives – there are still areas where improvement is needed in order for Africa as a whole to be able to take advantage of the benefits of ICT. The purpose of this paper is to illustrate how ICT has impacted the social and economic growth of African states.
Africa is on a Growth Path which is Becoming More Broad-based

In 2007, for the fourth consecutive year Africa’s real GDP growth rate exceeded 5 percent. 25 countries achieved a GDP growth rate of above 5 percent in 2007, and another 14 countries grew at a rate between 3 percent and 5 percent. High prices for commodities, increased remittances and policy reforms which have stimulated foreign direct investment (FDI) are the main drivers. However, the growth path is still fragile as diversification of African economies is generally low.

**Sustainable economic growth is the result of an interplay of a number of factors,** among them governance performance, physical infrastructure, skilled human resources, access to technology, and an enabling policy environment. Furthermore, effective information and communication processes are a prerequisite for any economy. While ICT play a role in all of these areas, isolated investment in ICT does not permit leapfrogging to higher growth rates. Nevertheless, as a key part of development strategies, mainstreaming ICT in the productive sectors “is a matter of economic survival” as the Chennai Statement on Up-scaling Pro-Poor ICT Policies and Practices. In the words of NEPAD: “Better connectivity offers the prospect for African countries to transform their economies.

The structural transformation of African economies is on-going and will continue at a faster pace. Better diversified economies with a growing service sector create new employment opportunities, strengthen productivity, and reduce the risks of economic downturns. Within the service sector, ICT services have an important role to play – as a sector of the economy as well as an enabler for other sectors. ICT also enable the aggregation of dispersed demand into viable markets. Further, given that informal and formal SMEs are the backbone of broad-based economic growth, it will be crucial to mainstream the use of ICT for SMEs. Even economies depending on the production of raw materials and on subsistence agriculture can achieve efficiency improvements through ICT investment.

**ICT contribute to economic growth** through: (1) increasing productivity across all sectors; (2) facilitating market expansion beyond borders to harvest economies of scale; (3) lowering costs of and facilitating access to services, notably in administration, education, health and banking; (4) providing access to research; (5) development of ICT products and services; (6) contributing to better governance, a prerequisite to growth, through increased participation, accountability and transparency. The use of ICT provides positive externalities, enhancing creativity, learning and problem-solving skills. Its impact on employment, new types of exports, and FDI requires the interplay of a number of factors: “It is the interaction among connectivity, access, network security, capability/skills, market structures and firm governance, as well as the regulatory and facilitation environment, which determine whether firms from developing countries can participate effectively and efficiently in the information economy and compete in global e-marketplaces.”

Nevertheless, **ICT growth is only weakly correlated with poverty reduction** due to the particular situation of the poor. They have low levels of skills. They lack physical assets. Their access to financial services is difficult. In many cases, exclusion on grounds of rural isolation, ethnicity, language, religion or gender adds to the hurdles of overcoming the income, infrastructural and market barriers they face. Economic research suggests that the contribution of ICT to pro-poor growth is de-pendent not on ICT infrastructure per se but on the role of ICT in supporting pro-poor initiatives. Effective poverty reduction requires targeted pro-poor policies to provide infrastructure (including ICT), to strengthen physical access to markets and to invest in education and health. As soon as ICT become affordable to low-income users, new employment, micro-entrepreneurial and social development opportunities emerge.

**Poverty is a multi-dimensional phenomenon,** encompassing a lack of opportunity, empowerment and security. ICT access can have powerful impact in addressing these constraints, giving the poor a stronger voice, facilitating their participation in decision-making processes and in demanding accountable government. Local radio is a medium particularly suited to promoting
economic development and empowerment, as it is affordable and accessible to listeners and demands few specific skills: a recent study found that radio plays a prominent role in tackling gender issues and promoting women’s visibility. South Africa, where the average person listens to radio for more than four hours every day, and Mali are examples of countries with a vibrant radio landscape, including but not limited to community radio. African governments have increasingly adopted legislative and administrative reforms allowing a greater variety of stations to operate and reducing public subsidies from state-owned national broadcasters.

**ICT in Africa**

The present spread and use of ICT in Africa is a function of number of factors including:

1. **Infrastructure** - it’s an availability, operation and maintenance. This includes not only ICT infrastructure but equally transport and electricity.

2. **Supportive enabling environments** - including specific regulatory frameworks and an overall policy framework that promotes sound economic and politic governance.

3. **Access** - this can be characterised by public access facilities, the existence of relevant content, adequate capacity at different levels and promising experiences with respect to mobile telephony.

These factors need to be addressed at all levels, namely the global, regional, national and local levels by all stakeholders.

At the same time, the ICT landscape in Africa is shaped by two structural features that characterise ICT development more broadly:

1. **Increasing convergence across different technologies**, in which the Internet is becoming the common platform for voice, data and broadcast information. This offers potential for cutting the costs of network deployment, along with providing new synergies, products and mediums for exchange. For example, the Internet is not only a mechanism for the dissemination of information; it is also a broadcasting system, a platform for individuals to interact and a market-place. Similarly, mobile phones are not only used for voice services – they also facilitate internet access data collection and even financial services.

2. **Multi-stakeholder partnerships have become an established feature of successful ICT development all over the world.** The DOT Force created by the G8 in 2000 brought together government, private sector operators, NGOs and international organisations in a constructive, interactive alliance for ICT co-operation and development. This approach has been continued by successor organisations, namely the UN ICT Task Force, the Internet Governance Forum and the Global Alliance for ICT and Development (GAID). Co-ordination and communication among large numbers of very diverse institutions increases the complexity of programme implementation in an environment which is already fast-paced because of rapid technological developments. However, it ensures sustainable solutions if agreement can be reached and sustained commitment achieved.

3 **Infrastructure: Dynamic, but Spreading Slowly and Unevenly**

ICT infrastructure mainly refers to networks, cables, wireless links or satellite dishes, as well as other important elements such as optimal use of these physical assets (interconnection of different networks or the management of the frequency spectrum) and their maintenance. ICT infrastructure in Africa has increased over the past years, in spite of the challenges of low population density, low in-comes and large rural populations. Particularly noteworthy is the virtual explosion of mobile phones in many African countries, which surpassed 200 million subscribers in early 2007 and continues to grow at higher rates than any other region. This has been particularly beneficial for rural areas. It is estimated that there are around 400 000 localities in Sub-Saharan Africa, of which 99
percent are villages. According to the ITU, less than 3 percent of these have a fixed line telephone connection, while 7 percent of rural households had a mobile service subscription in 2006.

Figure 1: Mobile Coverage in Africa

There is an overall trend across the continent toward use of wireless technologies that explains the relatively slow growth in fixed lines, which remains virtually static, at 28.5 million main lines in 2006 – about six times lower than the world average (The world average fixed line teledensity in 2006 was 19.4 per 100 inhabitants, compared to 3.1 for Africa.). This, along with high tariffs relative to income levels and low domestic PC usage, has lead to relatively slow rates of Internet and broadband uptake across Africa – by the end of 2006 there were only 44 million Internet users and 1 million broadband users (3.8 percent and 0.4 percent of the world total, respectively). This situation is now changing quite rapidly in urban areas with the recent introduction of wireless broadband and 3G (Third generation mobile phone technology, which enable network operators to offer users much more bandwidth and a wider range of more advanced services while achieving network capacity through improved spectral efficiency) in many countries, along with increased use of the Internet on mobile phones.

A number of initiatives are now taking place which will help accelerate the broadening of ICT uptake and smooth out the variations in access to ICT infrastructure within and between countries. The most notable are the various international fibre projects which will vastly improve the availability of international and cross-continental bandwidth over the next 2-3 years (Intercontinental capacity is expected to increase from the current 354 Gbps, to at least 30 Tbps).

Currently, international fibre only lands in a small minority of African countries, and where it does, suppliers are able to charge prices hundreds of times higher than elsewhere due to lack of choice. For example, E1 (2 Mbps - Megabits per second, unit for measurement of electronic data traffic) circuits from Africa to the US or Europe currently cost more than US$5000/month. By comparison, similar cross-Atlantic links between North America and Europe can now be obtained for US$10-20/month, and US$15-30/month on international routes in Asia. For the end-user this means that monthly Internet access in Africa costs 170 percent of gross national income – compared to the world average of 62 percent. Cross-border links are also still scarce and, as a result, most international traffic across Africa is carried over equally costly satellite links which usually land in North America or Europe, resulting in costs of about US$400 million – which is being paid to foreign operators for traffic between African countries.

To address these problems, NEPAD has established the NEPAD Broadband ICT Network (NBIN) initiative which aims to ensure that all countries on the continent have access to at least two independent international fibre cable links. In the first phase of the project a US$2 billion network called Uhuru Net has been proposed to cover Eastern and Southern Africa with onward links to
Europe, Asia and South America, supported by a policy and regulatory framework called the Kigali Protocol which came into force in February 2008. It has been ratified by seven countries so far.

Figure 2: Africa's Top Internet Countries

![Africa Top Internet Countries](image1)


Figure 3: Optical Fibre Network in Africa

![Optical Fibre Network in Africa](image2)

Figure 4: Design Capacity of African Intercontinental Systems 2008-2012

![Design Capacity of African Intercontinental Systems](image3)
In view of imminent increases in international bandwidth access, national infrastructure has become a much higher priority, and many countries are making strong efforts to establish national backbones. Contracts totalling over US$1 billion for at least 30 000 kilometres of national fibre-transmission networks have been awarded by African operators during the last 18 months, two thirds of which have been financed by the Chinese Export Import Bank. Alongside the roll-out of national fibre backbones has been the simultaneous emergence of microwave transmission networks. In the last decade African mobile operators, for example, have built between three and five times as much transmission network as fixed-line incumbents have in total. Mobile operators are now also upgrading their transmission networks in order to provide the capacity to support the delivery of 3G services.

To take maximum advantage of these developments, national interconnection between networks still needs improvement, along with increased deployment and lower-cost access in the last mile. Interconnection rates between telephony operators are often costly and the links often congested. Similarly, local Internet service providers usually have to interconnect over expensive congested international circuits due to the limited number of local Internet exchange points (IXP) – only seventeen countries in Africa have so far established an independent IXP.

Supporting resources and capacities are also essential in order to fully benefit from ICT. Apart from reliable electricity supply – which is needed to run any ICT infrastructure – transport networks such as roads or rail are required to support increased economic and social activities – otherwise distances which were removed by ICT will remain an obstacle. A recent report from the World Bank pointed out that a country's capacity to absorb and benefit from new technology...
depends on the availability of more basic forms of infrastructure. This also implies that there are limits to technologies which can leapfrog.

Human capacity is often another bottleneck to the spread and use of ICT across Africa. Illiteracy not only hinders economic and social development – it is also a major obstacle to the spread and use of ICT. Reduced capacity for maintaining networks or other hardware also limits the potential use of ICT. Investment in education at all levels – basic, secondary and vocational – is essential for Africa’s further development, not only to ensure that the public can effectively use ICT but also to create a better enabling environment for local innovation and wealth creation. This has resulted in increased efforts to ensure that schools and higher education institutions are fully connected to the Internet. Ongoing innovative initiatives in this regard include i) the NEPAD e-Schools initiative, which aims to ensure that all 600,000 schools on the continent are online, and ii) the emergence of National Research and Education Networks, which aim to establish multi-gigabit academic fibre optic back-bones to serve their member institutions.

Access: improved through community-based ICT and appropriate applications
For the majority of the population, public access facilities will continue to be an important part of the ICT landscape. Community-based access can be in the form of private cybercafés, state-supported telecentres, as well as schools or libraries. There is increasing awareness that such public facilities can provide multiple low-cost services, ranging from phone calls and e-mail to multi-media distance learning and e-commerce. These community access points provide an important “bridge” facilitating ICT access by SMEs and households in Africa.

These institutions may be dedicated facilities or provided through existing entities, most often store-front shops, libraries, community centres, police stations and clinics. Their institutionalisation is being seen as an important way of realising universal service objectives in rural and remote locations and has resulted in many national programmes and international projects scattered throughout Africa to test different models, means of implementation and mechanisms for sustainability. While individual users who pay for the services directly are often the principal income source, other services may be paid for or “subsidised” by government departments such as education, health, local authorities and NGOs. For example, the Kenyan government has launched the Digital Village Project to establish ICT centres throughout the country. To jump start the process, the programme is training 1000 digital village managers to oversee centres in 210 national constituencies. Managers undergo an intensive three-week training programme in the basics of business management. The ICT centres will be operated on a public-private partnership basis with the Ministry of Information and Communications and will involve collaboration across government, public and private sector organisations, development partners, civil society and individuals.

Similarly, radio is pervasive and readily accessible to all. There are more than three times as many radios as TVs on the continent, and ten times more radio receivers than fixed telephone lines. It is estimated that 60 percent of the population can be reached by existing radio networks. A recent study found that the number of community radio stations was growing in the majority of countries studied, with a total of 402 community stations in operation in 2006, although most of these were concentrated in South Africa and DRC. Combining radio with other ICT, namely Internet and telephony or activities such as listener clubs, has helped to make the medium a more interactive one.

Community media play a key role in the production and dissemination of information. People at local radio stations or telecentres can download relevant information from the Internet, adapt it to the local context, encourage people’s participation in debates and contribute to the agenda-setting of a local community. In this way they contribute to general information flows across society and give a voice to people. Sharing of information as well as encouraging increased participation, particularly by the poor, enhances empowerment and transparency – both of which play a key role in improving governance, which is fundamental to sustainable development.
Applications and locally relevant content play a crucial role in linking people to ICT -- they make ICT infrastructure come alive. Applications include e-mail, SMS, electronic transactions, Internet-based telephony and multimedia. The use of these tools in various sectors has led to a wide variety of “e hyphen” constructs including e-commerce, e-trade, e-agriculture, e-health, e-education or e-government. In Africa, governments and development agencies have lagged behind when it comes to developing applications for important sectors of the population such as farmers, teachers or health workers. Further, much of the available content and services are still neither locally relevant nor available in local languages. Only 2 percent of the over 2000 African languages, which represent two-thirds of all global languages, can be found online. However, there is evidence that speakers of African languages are increasingly claiming their space: there are 1655 blogs from African countries registered -- with more than 1000 from South Africa -- and the Swahili Wikipedia has more than 1000 entries.

Lagging Internet applications and content in Africa has also retarded development of African Internet sites. Although growth of Internet sites located in Africa in 2006 was much higher than the world average, Africa -- home to 14 percent of the world’s population -- still accounts for only 0.3 percent of global activity in the Internet, with a total of one and a half million hosts, as compared to 88 million in Europe, 42 million in Asia and 18 million in Latin America. Aside from the lack of local content, limited local web-development capacity and low awareness of the value and uses of a web-presence has contributed to the limited sophistication and utility of many local web sites. In addition, African Internet domains may not be seen to be as reliable or as credible as international Internet domains, and they are usually more expensive to purchase. Furthermore, local bandwidth constraints have also encouraged the use of “offshore” African web sites and fuelled African uptake of international hosts.

Currently the greatest progress in implementing local Internet applications in Africa has been made in the media, business and health sectors. UNECA and other development agencies have led various activities to promote the development and use of e-government, e-business, e-health, e-learning and e-science applications, and Africa’s cultural and linguistic diversity has been an issue in various declarations and plans. Building on the explosion of mobile phones in Africa, applications for these seem particularly promising, as shown by the examples of South Africa and Kenya which are leading the continent in the adoption of mobile-banking solutions aiming to reach the un-banked -- in both countries; more people have mobile phones than bank accounts. In the case of Kenya, the MPESA mobile phone funds transfer service was launched in March 2007 and by November there were 1.1 million registered users, almost 1400 service points, and a total of US$87 million had been transferred. Other particularly promising applications for the mobile technology include: health services (medication reminders, test result notifications, and telediagnostics using mobile phone cameras), agriculture (market prices, inputs prices and ordering, and weather information), and job search services.

Enabling Environments for Private Investment: Regional and National ICT Policy and Regulatory Frameworks are Essential

National policy is a key factor in the effective development and use of ICT, and an increasing number of African governments have begun to adapt their national regulatory frameworks to help foster the use of ICT. The primary objective of regulatory processes is to ensure transparency and openness while establishing a level playing field which limits the abuse of market power. They also promote and strengthen predictability, stability and consistency for telecommunication operators, as well as for investors and end-users. A good ICT regulatory framework is neither arbitrary nor unnecessarily intrusive. In order to achieve these objectives, independent regulatory authorities play a central role.

It is generally accepted that competition in the ICT sector is more efficient for the provision of services than a monopoly. However, with 26 state-owned incumbents in mid-2007, Africa is the
continent with the lowest share of private fixed line operators. The largest number of monopolies is found in Sub-Saharan Africa, where the majorities (51 percent) of the fixed line markets are under the monopoly of one operator. In the last mile, lack of a competitive liberalised policy environment and the dominance of state-owned operators in many countries is a major contributor to high prices for access and limited network diffusion. “The lack of competition has meant that telecommunication and Internet costs are among the highest in the world for those who can least afford to pay”. Clearly, in these circumstances the scope for ICT to contribute to inclusive, pro-poor growth is highly circumscribed. ICT policy frameworks are best developed in collaboration with key national stakeholders from all relevant government departments as well as civil society and the private sector. Communication ministries and regulators often lack the capacity to address the needs of the poor, as they are too preoccupied by dealing with private sector entities and telecommunication operators. Furthermore, in many circumstances they are marginal players in national development strategies.

Under the UNECA African Information Society Initiative (AISI) initiative, many national, sectoral and regional policy-making efforts have produced tangible results: 35 African countries now have an ICT policy in place, 11 are in the process of elaborating one and only in seven countries is the process not yet launched. Nevertheless, only three countries have actually adopted their ICT policies and begun implementation (Burundi, Gambia, Swaziland). While the existence of ICT policies per se can be seen as progress, the quality and utility of these policies has not been fully evaluated. In a large sense, regional integration will be increasingly important for ICT development given the limited market size and differing investment and regulatory frameworks that characterise a number of African countries.

The Effect of Investing in ICT

It is clear that role of ICT investment is mainly available at the macroeconomic level, for instance Colecchia and Schreyer (2001) and Van Ark et al (2002). Both the researchers concurred that the ICT investment has improved due to the falling in ICT pricing, at a times enabling investors to leave other assets.

The pace at which the ICT investment is taking place in Africa is far varied. For the countries for which data are available, growth accounting estimates show that ICT investment is between 0.3 and 0.8 percentage growth over the GDP per capita over the 1995-2001 period.

ICT can help firms to gain market share

There is evidence that ICT can help firms in the competitive process. According to Doms et al (1995) higher education found that in the US, the increased use of advanced technologies in manufacturing was positively correlated with plant expansions. Labour productivity grew fastest in establishments of communication technologies.

Computer networks play a key role

Some ICT technologies may be more important to strengthen firm performance than others. Computer networks may be particularly important, as they allow a firm to outsource certain activities, to work closer with customers and suppliers, and to better integrate activities throughout the value chain (Atrostic and Gates, 2001). These technologies are often considered to be associated with network or spill over effects.

In recent years, more data have become available on this technology. For the United States, Atrostic and Nguyen (2002) were the first in linking computer network use (both EDI and Internet) to productivity. The study found that average labour productivity was higher in plants with networks and that the impact of networks was positive and significant after controlling for several production factors and plant characteristics. Networks were estimated to increase labour productivity by roughly 5 percent, depending on the model specification. Atrostic et al (2002) confirmed these findings.
Motohashi (2001) notes that firms with computer networks outsourced more activities. Moreover, skilled managers and employees often help in making the technology work in large firms (Gretton, 2002).

**Businesses in the service sector also benefit from ICT**

The work with firm-level data is also broadening to the services sector, where ICT use is more widespread than in manufacturing. For example, Doms, Jarmin and Klimek (2002) constructed a new linked dataset for US retail trade, bringing together a range of different sources. The study’s results show that growth in the US retail sector involved the displacement of traditional retailers by sophisticated retailers introducing new technologies and processes.

**Africa and International Commitment and Performance Delivery**

A number of declarations and commitments have been agreed by the international community in an effort to reduce the digital divide, particularly in Africa. Chief among these are the two UN Summits on the Information Society (WSIS), certain provisions of the G8 Africa Action Plan and the NEPAD Founding Statement. Nevertheless, the language of most of these commitments is quite broad, reflecting the wide range of issues connected with ICT development and its effective use. Efforts to deliver on concrete commitments have been mixed: Africa has taken a leadership role in this regard through its NEPAD ICT initiatives. At the international level, the UNECA has played an important role in promoting policy dialogue and co-ordination. Multi-stakeholder and private sector commitments – which are important given their facilitative role in furthering ICT development – are beginning to emerge and should be taken into account.

**International community**

In the Millennium Declaration of 2000 the international community resolved to ensure that the benefits of new technologies, especially ICT, are available to all.

The 2003 World Summit of the Information Society (WSIS) sought to establish the foundations for an information society for all. The international community committed itself “to turning this digital divide into a digital opportunity for all, particularly for those who risk being left behind and being further marginalised.” Additional commitments included special efforts to empower young people and women. This broad commitment was reaffirmed during the 2005 WSIS in Tunis, where the focus was “to put Geneva’s Plan of Action into motion as well as to find solutions and reach agreements in the fields of Internet governance, financing mechanisms, and follow-up and implementation of the Geneva and Tunis documents.” The general feeling is that the Internet Governance Forum has been a success so far, though some key internet governance issues remain contentious. On financial mechanism very limited progress has been registered.

The G8 addressed ICT through both the establishment of the DOT Force and in specific elements of its Africa Action Plan. The DOT Force had a positive impact by setting a standard with respect to introducing a multi-stakeholder approach in ICT activities and by initiating a number of effective and continuing programmes in Africa. At the same time, progress reports regarding implementation of the Africa Action Plan are more disappointing: they signal “significant additional funding” by the G8 for basic education, but limited concrete contributions to ICT activities. In recent years ICT issues and concomitant commitments have not figured in the G8’s agenda.

**Africa**

The African Union identified the right to access to information and freedom of expression as fundamental principles underpinning its landmark 2002 “Declaration on Democracy, Political, Economic and Corporate Governance”. Specifically, African governments agreed to “…ensure responsible free expression, inclusive of the freedom of the press.” These two principals are
central as well to the “Declaration of Principles on Freedom of Expression in Africa” as it was adopted by the African Commission for Human and Peoples’ Rights in 2002. The declaration commits the States Parties to the African Charter on Human and Peoples’ Rights to “make every effort to give practical effect” to a number of principles, including the following: i) to guarantee of freedom of expression; ii) to encourage a diverse, private broadcasting sector while transforming government-controlled broadcasters into public service broadcasters; and iii) to have independent telecommunications regulation.

The NEPAD Founding Statement 45 situates ICT within the field of infrastructure, which is one of its six identified sectoral priorities for the development of Africa. Nevertheless, ICT has been identified as one of four fast-track priority sectors in the implementation of the NEPAD programmes. The NEPAD programmes have established a special task force, the NEPAD e-Africa Commission, to coordinate its core ICT initiatives:

1. **NBIN** In its first phase, ministers responsible for ICT from Eastern and Southern African countries have endorsed the US$2 billion UhuruNet submarine cable project for the region. A particularly important contribution of NEPAD in this context is pursuing an open access model, which means that anyone can join in as an investor in the project, which will be operated on a cost-recovery rather than a for-profit basis.

2. **E-Schools** This initiative, which aims to provide Internet access in African schools, is backed up by a commitment of US$15 million from the private sector for the demonstration phase of the project. Of the 16 countries that have been invited to participate, nine countries (Egypt, Ghana, Lesotho, Kenya, Mali, Mauritius, Rwanda, South Africa, and Uganda. Other countries planning to participate in the first phase of the project are Algeria, Burkina Faso, Cameroon, Gabon, and Nigeria.) have so far begun their involvement with the project.

While progress has been achieved with these initiatives, implementation has proceeded at a slower-than-anticipated pace, not least because communication and co-ordination among partners in these multi-country, multi-stakeholder and continental initiatives has proven to be challenging.

Among the international institutions working to foster ICT development in Africa, the UN-ECA has taken a leadership role. Much of UNECA’s work is coordinated and implemented in the framework of AISI, which focuses on the following issues: Policies and plans at all levels: Through AISI 35 national ICT policies have been developed. Furthermore, sectoral initiatives in the fields of e-trade and e-health are ongoing; Networking and partnership - PICTA, the Partnership for ICT in Africa, focuses on partnership and networking and is an informal group of donors and executing agencies where information and experiences are exchanged; and Capacity-building - Targeting policy makers, civil society and the private sector, UNECA organises workshops and trainings as well as numerous events on various topics related to the information society.

UNECA has also worked with national governments and regional economic communities (RECs) to develop the African Regional Action Plan on the Knowledge Economy (ARAPKE). ARAPKE builds on the Accra Commitments for Tunis and identifies specific action lines for key areas (The identified key areas are: enabling environment, infrastructure and access, e-strategies and policies, e-local, information society indicators, capacity building, research and development, digital solidarity, internet government, women and the information society, parliamentarians, youths, cities, and local authorities, media, harnessing the digital Diaspora, African languages, persons with disability, resource mobilisation and partnership (UNECA 2005 p.10-12).

**Challenges to be Addressed**

Efforts to promote ICT development and expand effective access in Africa have met with limited success to date. Progress in addressing key bottlenecks – infrastructure, access and the enabling environment – will be determinant in ensuring the digital divide is bridged, and that ICT can play a supportive role in Africa’s economic, social and political development.
Inadequate capacity and affordability hinder access

The main challenge to make effective use of the benefits offered by ICT is absent or inadequate capacities at several levels, in particular:

1. On the individual level as regards literacy levels and ICT skills.
2. At the institutional level as regards capacities for effective deployment and maintenance of ICT infrastructure, for the creation of relevant content and applications, as well as for regulation. This requires a mix of interventions in technical, legal, economic and socio-cultural issues.

For many media there are only limited applications which are relevant to the needs and capacities of poor people. Banking services or market information communicated via mobile phones has proven that poor people can benefit from ICT if the applications meet their needs and can be accessed by them. An important aspect of relevant applications is the provision of locally relevant information in local languages. African languages are seriously under-represented on the Internet and software applications in African languages are only slowly developing.

Affordability and public access, which are of fundamental importance especially for rural Africa, are challenged by issues of financial sustainability. A lack of competition keeps prices for ICT services unattractively high. Local radio stations have difficulties paying qualified staff and high licensing fees. Telecentres cannot always cover their costs from the income generated by their clients.

Deficiencies in the regulatory and wider policy environment reduce potential

One of the most important limiting factors to affordable and efficient ICT in Sub-Saharan Africa is often ineffective regulation combined with the large share of the market being held by monopolies or duopolies, which results in ineffective competition, high prices and limited investment from the private sector. The dominance of monopolies together with the lack of independent telecommunication sector regulators which are able to encourage effective competition in the sector are two key challenges in ICT policies. The rationale for establishing independent regulatory institutions is based on ensuring non-discriminatory treatment of all players in the liberalised market. The UN Task Force on Financing ICT stated: “The introduction and strengthening of independent, neutral sector regulation has helped to reinforce investor confidence and market performance, while enhancing consumer benefits.”

In competing for scarce government financial resources, ICT policies and development priorities are often at odds with one another. In addition, ICT policies are not always integrated into other national processes, namely the budget, general budget support (GBS) and poverty reduction strategies (PRS). Policies with respect to universal access, education, electricity and micro-finance need to be closely interlinked to offer real benefits to the rural population. But also other policy areas, such as taxes, need to integrate ICT concerns (for example the impact that high import taxes on computer equipment have on broad access to computer hardware). Policy incoherence across relevant public policy areas can undermine the outreach and effectiveness of ICT by limiting the extent to which they can be used for low-cost communications and timely information-sharing.

The wider policy environment in many African countries is characterised by unfavourable business conditions as well as by the limited circulation of information. Difficulties with respect to information access not only hamper private sector stakeholders, it also hinders transparency, accountability and participation from the bottom, with a negative impact on governance in general. Improved governance to give the poor a voice is essential to stimulate private investment and technological change for poverty reducing and sustainable economic growth.

Given the small size of many African countries and markets, the lack of a regionally harmonised regulatory environment is a serious hindrance to cheaper ICT services and greater geographical coverage. New challenges for regulation are emerging in the wake of technological developments, including trends towards converging telecommunications and broadcasting.
Inadequate and unevenly distributed infrastructure

The primary obstacle in making use of ICT for economic growth or poverty reduction for many is the absence or limited scope of existing ICT infrastructure, particularly in rural areas. Basic ICT infrastructure is concentrated in a few countries and in urban settings. For most of Africa’s rural population, ICT are physically out of reach. Where ICT infrastructure is in place, its use is often constrained due to inadequate supportive infrastructure, in particular electricity and, to a lesser extent, transport systems.

Africa’s available ICT infrastructure is not fully utilised due to its low physical and technological capacity (as is the case for Internet bandwidth) and due to gaps in interconnectivity, both at regional and international levels. This means in practice that much of Africa’s Internet and telephone communication is routed via networks and technologies located in North America or Europe, resulting in substantially higher costs for the end user than in other regions of the world.

While there are numerous initiatives to address the lack of infrastructure, many of them are moving forward slowly and/or lagging behind schedule. Implementation is hindered by a lack of long-term commitment, available investment capital and capacity and an absence of sustained support from implementing parties.

The use of ICTs as a tool for economic growth and poverty reduction is a multidimensional challenge. It is therefore not sufficient to address it only in an economic or technical context. It also requires political, educational, cultural, scientific, legal, regulatory and financial attention.

4 Recommendations

Securing adequate financial support and multi-stakeholder partnerships for ICT development and diffusion. Scarce public funds need to be complemented by maximum mobilisation of private investment, including from the African Diaspora. This underlines the importance of ensuring that public policy creates a welcoming enabling environment for private initiative and risk-taking. ICT licensing arrangements should support access by underserved regions and SMEs. ICT-related multi-stakeholder partnerships, which encourage co-operation across a wide range of resource providers, can boost access by the poor and the SME sector to ICT services and opportunities, with positive impacts on growth and poverty reduction. In the words of UNECA: “Multi-stakeholder networking and partnerships have been widely accepted as a means towards more effective and impactful development in Africa, and are central to ECA’s vision for an African renaissance”. Private capital will follow improved infrastructure, broader access, and a supportive enabling environment.

A common vision of the key role ICT plays in ensuring inclusive, globally competitive and knowledge-based economies and societies which has been set out in the 2003 and 2005 WSIS resolutions and is shared by African leaders and their development partners alike. The following recommendations are derived from this shared view of how ICT can play a supportive role in promoting economic growth, poverty reduction and achievement of the Millennium Development Goals (MDGs).

Sustained political commitment to ensure ICT-friendly regulation and increased investment is a pre-requisite for effective growth and poverty reduction. Strong political impetus is crucial when it comes to ensuring open, liberalised and effectively regulated ICT markets. On the donors’ side, sustained political commitment needs to be maintained, even where ICT activities are mainstreamed successfully into development activities.

Improving Regulatory and Governance Policies and their Implementation

A conducive environment in terms of improved overall governance, a level playing field for (potential) competitors, and targeted pro-poor ICT-policies are essential for ensuring ICT has a strong impact on economic growth and poverty reduction.
African countries should:

1. Ensure effective competition to lower end-user prices and establish independent regulatory mechanisms.
2. Improve and ensure coherence among national policies by mainstreaming ICT into political processes, particularly in poverty reduction strategies.
3. Actively take up ICT and promote e-government applications in order to increase effective administration, transparency and public participation. Open source solutions should be considered.
4. Improve information-sharing within the country, including freedom of expression and support for consumer awareness groups.
5. In countries which have one, continue to implement national ICT policies; in other countries, start elaborating one, ensuring broad-based participation.

International partners should:

1. Support independent regulators through the exchange of experience.
2. Promote good governance, including freedom of expression.
3. Provide platforms for the exchange of experience in order to strengthen regional cooperation.

Developing Regional and Rural Infrastructure

Addressing the availability, operation and maintenance of basic infrastructure (ICT, electricity, transport) beyond borders is a core requirement to boost economic growth.

African countries should:

1. Mobilise funding and investment and implement the necessary legal frameworks to advance NEPAD’s broadband initiative.
2. Design mechanisms and policies which ensure adequate infrastructure for universal access, for instance fostering private sector investment which also extends to underserved areas.
3. Ensure regional coordination in planning new infrastructure as well as when operating existing infrastructure.

Those countries which have not yet done so need to establish IXPs.

International partners should:

1. Support the NEPAD-led broadband project with financial resources as well as with capacity building.
2. Support regional bodies such as RECs and regulatory associations as well as national governments by building their capacities in managing challenging, large-scale and long-term projects involving numerous partners.
3. Increase financial support for infrastructure – in particular ICT – and target countries and regions which are significantly underserved.
4. Support access to financial resources such as microcredit and venture capital for SMEs to take advantage of business opportunities.

Strengthening Capacities and Providing Relevant Content

ICT access for the masses requires adequate individual and institutional capacities, enhanced relevance via appropriate local content, affordable end-user prices, and ready physical access to ICT.

African countries should:

1. Encourage and promote the creation of applications (based on open source approaches to facilitate sharing) which are i) relevant to subsistence farmers, health workers and teachers, ii) available in local languages and iii) work on locally available media (i.e., mobile phones).
2. Ensure regulation permits companies to offer services such as banking through mobile phones.
3. Facilitate public access by supporting telecentres financially (such as through Universal Service Funds) for their provision of public services and by developing radio legislation which is adequate for both local commercial and local community radio.
4. More fully utilise ICT potential and opportunities in the education sector.

International partners should:
1. Include training/capacity building components in all ICT activities, particularly infrastructure, in order to ensure that established infrastructure is used and maintained efficiently.
2. Support capacity building efforts in view of developing locally relevant content as well as applications in local languages.
3. Invest in community access such as telecentres or local radio stations in order to ensure both access for all and the creation of locally relevant content.
4. Sustain a high commitment to the education sector and foster independent research and think tanks, such as the African Economic Research Consortium.
5. Provide platforms for the exchange of experiences and material which can be used by local institutions (such as the platform of one world radio).

5 Concluding Remarks

Despite the slowdown in the economy and parts of the ICT sector, ICT has proven over the past decades as a key technology with potential to transform economic and social activity. It has already led to more rapid growth in countries where appropriate policies to reap the benefits from ICT have been put in place.

In addition, continued technological change should bring many more benefits in the future. All African leaders should therefore exploit this technology, by fostering a business environment that encourages its diffusion and use and by building confidence and trust. However, policies to bolster ICT will not on their own lead to stronger economic performance. Indeed, economic performance is not the result of single policy or institutional arrangement, but a comprehensive and co-ordinated set of actions to create the right conditions for future change and innovation. Policies to strengthen economic and social fundamentals are of great importance in drawing the benefits from ICT. The policy implications arising from this report thus reaffirm and elaborate those of the OECD growth report.

Policy makers have to be prepared to invest time and political capital in meeting these challenges. Policy action will also require further study of a range of thorny, yet unresolved issues. There is a major knowledge gap regarding which impact, if any, ICT has on functioning markets, including digital markets, for example in reducing transaction costs and changing the respective market power of different parties. A better understanding of ICT’s impacts on innovation, as well as society’s ability to deal with ICT will also be essential.

6 References


Entrepreneurship and E-commerce as Core Disciplines in Institutions of Higher Learning

Lucas Mwirigi and Nderi Wari — (The Kenya Institute of Management Meru Branch, Kenya)

1 Abstract

During the past decade, entrepreneurship has become a commonly taught issue in higher Institutions of Education all over the world. Their entrepreneurial role has increased as they attempt to provide information and assistance to small businesses. Alongside, E Commerce has been developing at a tremendous pace over the past few years. New types of businesses are evolving within this new economy and, with them, new business models are being created to cater for the new business activities and new transactions which are taking place. This places universities and colleges at the centre of these developments. In this paper we attempt to explain why E commerce and Entrepreneurship should be taught as core courses in our institutions of higher education. Secondly, we try to determine the extent of their incorporation in the courses offered by the Institutions of Higher Education and identify implications for policy makers and educationists. The paper makes some recommendations and ends with a conclusion.

Key words: E-commerce, Entrepreneurship, Institutions of Higher Education, Educationists, Policy makers

2 Introduction

The learner in Kenya faces a variety of challenges before he/she enters the labour market. Although the economy has shown improvement still unemployment is an imminent challenge that the learner has to contend with throughout training. The Kenyan learner will find it hard to get a job at the end of training and if he gets it, will be forced to stick with it forever with no chances of switching to a better one in future. The dream job for many young Kenyans has remained an illusion never to be realized. This situation is complicated by the fact that vocational education in Kenya only focuses on preparing the student for one specific job or occupation. After graduation, the reality is hard to absorb among many graduates who find themselves with knowledge and skills they cannot apply outside the specific domain they have been trained in. Coupled with this, is the lack of ideas and entrepreneurial strategies for those who would wish to venture into business.

The issue of capital is not a big challenge in Kenya, as there are many institutions willing to finance, institutions such as the commercial banks, Micro finance institutions and the government which has set the Youth Development fund to finance enterprising youths. The appetite/ threshold for risk taking is very low which may be attributed due to lack of well ingrained entrepreneurial studies Still the another problem is getting the upcoming entrepreneurs fresh from college come up with promising and workable ideas that can be funded by these institutions. The question here should not be how long one spends time in an education institution but does the education system avail the requisite entrepreneurial skills to the students. This paper would like to shed light...
on the nature of education availed to our youth, does the content transform our students to be entrepreneurs or there are gaps that are existing.

Claims to lack of startup financing is an indicator of lack of awareness of the existence of the sources of finance which we attribute to poor exposure by higher education institutions which should be at the forefront in disseminating that information. By the time the learners complete O-level they are supposed to be aware of the various sources for starting up enterprises and believe in themselves to create employment. This may be attributed to the attitudes of these institutions towards entrepreneurship. G. Allan et al (2008) note that in the 1980s, ‘business’ was very much a dirty word in academic circles. In fact, the main interaction between business and universities came at the careers office – there was little recognition of the value of bringing business and academia together, and even less appreciation of the value of preparing students for careers in business.

Currently, the world is undergoing a lot of changes. According to Nair (2003), the demands of the modern economy also make it inevitable for people to change career paths several times during their lives. This requires access to education at any time and to be a lifelong student. The emphasis should be placed on the implementation of an integrated curriculum by broadening the occupational aspects with applied knowledge. This is the same sentiment echoed by Nasser (1993) who states that learners must be educated to manage success in spite of the turbulence in the economy. Education institutions and government have to make continuous efforts to encourage entrepreneurial development. Higher Institutions of Education need to refocus their curriculum and introduce entrepreneurial education to add value to the academic attainment of their graduates.

There is therefore a need to examine courses offered by our institutions of higher learning to ascertain whether they adequately prepare their graduates to exploit their knowledge and skills for entrepreneurial activities. In our case higher education institutions will refer to academic universities and professional vocational training institutes.

Statement of the Problem

The world has been transformed to a global village due to the interdependency between one nation’s resources requirements to other nation resources needs. Many nations do experience negative balance of trade that mostly influences their entrepreneurial endeavours to fill the gap in trade. This has prompted certain governments on focusing on e-commerce and entrepreneurship to bridge this gap. The battle front has moved from availability of raw materials to knowledge based economies, such that, nations without e-commerce and entrepreneurship leanings have ended up being net importers and dumping grounds for substandard goods.

This has led the government to pressurise the HIEs on developing curriculums inclined towards e-commerce and entrepreneurship. The question arises on the extent to which these HIEs have implemented the various government Sessional papers on investment and entrepreneurship.

Objectives of the Study

The Main objective of the study was to determine the overall perceived importance of E-commerce and entrepreneurship as a core course to the institutions of higher learning and the perceived preparedness of the graduate to fit in the global village that is oriented towards e-commerce.

To develop an understanding of the extent of incorporation of E-commerce and entrepreneurship in the in the courses offered by HIEs. Does it really impart the requisite skills required by an entrepreneur?

To identify implications for policy makers and educators in addressing the deficiency in the present courses being offered by HIEs in the area of e-commerce and entrepreneurship.
3 Literature Review

In this part we address our main objective. We first distinguish between entrepreneurship education and training, secondly we discuss the role of HIEs in entrepreneurship education and thirdly we look at the impact of entrepreneurship training and education. In the second part, a review of e-commerce as an academic discipline is made.

Entrepreneurship Education and Training

In the GEM Special Report (2008) Entrepreneurship education is defined in broad terms as the building of knowledge and skills “about” or “for the purpose of” entrepreneurship generally, as part of recognized education programs at primary, secondary or tertiary-level educational institutions. Entrepreneurship training on the other hand is defined as the building of knowledge and skills in preparation for starting a business. From the definitions it is clear that the purpose of entrepreneurship training is very specific, unlike the purpose of entrepreneurship education, which can be much broader. This report further explains that individuals may participate in entrepreneurship education and training at various points in their lives, and this education and training may take different forms. In some universities, students may receive education “about” entrepreneurship. This education is not designed to provide training in starting a business. Instead, new venture creation is the context of an academic education, not the goal. At the other end of the spectrum, an employer or a government agency may offer training in starting a business to employees about to lose their jobs.

The content of entrepreneurship education and training is of concern to many scholars. Sexton (1997) quoted in GEM special Report (2008) revealed the ten most desired topics for achieving and managing fast growth. These were primarily business concerns, such as selling, financing growth, managing cash flow and hiring and training employees. While The European Commission Report (2008) suggests that the goal of entrepreneurship education should be to promote creativity, innovation and self-employment.

Entrepreneurship education and training therefore entails more than the development of particular business skills. It can influence an individual’s motivation to strive for something that might otherwise seem impossible or too risky. In short, it can create positive perceptions and desire among individuals to start businesses.

In this paper, we are in agreement with Fayol (2006), that teaching entrepreneurship at the academic level is particularly relevant for several reasons. First, ventures founded by highly educated entrepreneurs tend to be more innovative, experience higher growth levels and survival rates, and are more often involved in international activities. Ching & Ellis (2004). Note that ego, stimulating and teaching entrepreneurship among the higher educated has positive consequences for society in general. Secondly, teaching entrepreneurship at an academic level stimulates entrepreneurship research and raises our knowledge level about entrepreneurship both as a research object and as a career domain. This will lead to improved policy-making and better entrepreneurship curricula at all levels of education.

Role of Higher Institutions of Education

Globally, higher education institutions are at the forefront of nurturing entrepreneurship knowledge and skills to some extent in their learners. Witten (1990) stated that the new economic environment requires institutions of higher education to expand their role in providing an educated workforce. In response, institutions have developed new programs and proactive measures to encourage, promote, and assist in developing entrepreneurship.

Young (2008) points out that efforts have continuously been made by education and government to encourage entrepreneurial development. This increased interest has been seen in both curriculum and initiatives to provide information and assistance to small business. Entrepreneurship education
is currently taught primarily through modules in business school courses and extra-curricular activities. In connection with this, Broak (1998) points out that these courses enabled participants to assess their business performance against models of best practice and to take action to develop their skills. In addition, small- and medium-sized firms have made valuable economic and social contributions through innovation.

The entrepreneurial role of colleges and universities has increased as they attempt to provide information and assistance to small businesses. Research shows small business assistance programs have generated primary benefits to the clients and may also generate secondary benefits to the economy at large. Wood (1994) quoted in the NCGE (2007) report, recommends that HEIs need to enhance the perception and relevance of entrepreneurship education, so that both students and staff recognize the value of its combination of innovation, creativity, collaboration and risk-taking skills to a wide range of disciplines.

We believe that from the HIEs more focused and confident entrepreneurs will be channeled into the market as a result of the training received in these institutions. Graduates will also be able to focus on other forms of employment rather than relying on formal employment.

**The Impact of Entrepreneurship Training and Education**

The impact of entrepreneurship education and training on individual attitudes, actions and ambitions is of particular interest to policy makers, educators and practitioners. It is generally believed that individuals who perceive they have the skills and knowledge to start a business are more likely to do so.

The importance of entrepreneurship education and training was stressed in the (2009) report by the Global Education Initiative (GEI) of the World Economic Forum (WEF):

While education is one of the most important foundations for economic development, entrepreneurship is a major driver of innovation and economic growth. Entrepreneurship education plays an essential role in shaping attitudes, skills and culture—from the primary level up. ...We believe entrepreneurial skills, attitudes and behaviors can be learned, and that exposure to entrepreneurship education throughout an individual's lifelong learning path, starting from youth and continuing through adulthood into higher education – as well as reaching out to those economically or socially excluded—is imperative. (p.7–8)

In a different study, (Summit Consulting, 2009) found that university graduates who have taken entrepreneurship courses are more likely to select careers in entrepreneurship, work in small businesses and develop patented inventions or innovative processes, services or products.

Researchers have suggested that education and training for entrepreneurship should positively influence actions by enhancing the skills required to start and grow a venture (Honig, 2004; Summit Consulting, 2009). For example, education and training can enhance one's cognitive ability for managing the complex process of opportunity recognition and assessment DeTienne and Chandler, (2004). Classes that provide role models and examples of the entrepreneurship process can equip individuals with the ability to recognize, assess and shape opportunities .Fiet, (2000).

In contrast, Gatewood (1993) saw potential negative effects. Focusing on public sector venture assistance, she suggested that while these programs can improve the abilities and problem-solving approaches of potential founders, they could discourage entrepreneurs who are refused assistance. Moreover, those receiving training may not start their businesses because they may realize they do not have the right skills or that they do not have a viable opportunity, thus preventing learning by doing.

In this paper we are not interested on the negative side of entrepreneurial education because we are of the view that it can address the current issue of unemployment among the graduates from our institutions of higher learning. So, from the positive side entrepreneurship education
and training entails more than the development of particular business skills. It can influence an individual’s motivation to strive for something that might otherwise seem impossible or too risky. In short, it can create positive perceptions and desire among individuals to start businesses.

**Literature Review on E-commerce**

Any discussion on entrepreneurship cannot avoid mentioning e-commerce because as noted by Ngai (2004), in the last decade of the twentieth century, advances in information and communication technology (ICT) and commercialization of the Internet had transformed the way people think about doing business. E-commerce is about a new business concept that incorporates all previous business management and economic concepts.

According to Burns, (2001), thousands of new ventures were started in the late 1990’s to exploit the new opportunities brought about by the e-commerce revolution. Unfortunately, most of these ventures were not financially sound and relied on constant injection of capital to survive. Inevitably the e-commerce bubble burst when the investment funds dried up after the crash of NASDAQ technology index in April, 2000. Burns (2001) further notes that many of the ill-fated e-commerce ventures were operated by previously successful entrepreneurs. They usually had a good understanding of operating a business under traditional environments, but knew little about the technologies applied in their e-commerce ventures and the implications of these technologies to business. As a result, Ngai (2004) suggests that E-commerce entrepreneurs and professionals need skills and knowledge in both business and ICT disciplines to run e-commerce ventures successfully.

Globally, e-commerce is yet to be adopted by many HIEs. As a discipline it is in the developmental stages. Featherstone et al (2004), point out that education programs in e-commerce and e-business are very much in an embryonic stage. Current research in e-commerce education focuses on two areas, namely the characteristics of e-commerce education programs and the approaches for incorporating e-commerce contents into education programs.

As an evolving discipline, the boundary of e-commerce is vague. There is neither a solid theoretical base for the discipline nor a distinctive group of professionals.

According to S. Michael (2008), e-commerce programs have been developed by combining existing contents from the business and ICT disciplines with newly developed e-commerce contents. The mix of contents has largely been based on the individual institution’s view concerning the relevance of the contents, which in turn has been determined by the institution’s perceptions of e-commerce as an academic discipline. From this observation there is no universal course contents guideline for e-commerce education. The implication is that institutions may end up offering unrelated courses all in the name of e-commerce. Therefore the objective of teaching e-commerce alongside entrepreneurship will not be achieved. A framework is needed to help establish standards and unify e-commerce courses.

Globally, e-commerce has been developed at various level in HIEs. Etheridge et al (2001) and King et al(2001) found that most US-based e-commerce education programs were at the postgraduate level and offered by business faculties. Durlabhji and Fusiliere (2002) and Dunning et al (2001) also found that most postgraduate e-commerce programs in US were offered as disciplinary streams in the Master of Business Administration (MBA) programs.

Chen et al (2004) examined the structures of e-commerce programs in China and found significant variations among programs. They noted that teaching capacities of individual institutions dictated the structure of their programs.

Another aspect in e-commerce education research is the approaches for incorporating e-commerce contents into education programs. S. Michael (2008) notes that a large proportion of studies in this area are based on individual institution’s experiences in implementing e-commerce programs.

In the reviews in this section, globally, studies have been done which gives us an insight on the incorporation of entrepreneurship and e-commerce into education programmes. There is no general agreement on the number of course units to be taught and at which level, methods of delivering the
content and issues of quality assurance are not mentioned in the literature review. Without these standards in place e-commerce and entrepreneurship are likely to be offered haphazardly by the institutions of higher learning and may not impart the intended knowledge or skills.

Why Entrepreneurship and E-Commerce should be Taught as Core Courses in Institutions of Higher Learning

From the literature review we have presented, entrepreneurial education is relevant because it is a major drive to innovation and economic development, it leads to development of particular business skills, motivates individuals to take risks creates positive perceptions and desire among individuals to start business. E-commerce on the other hand, is about a new way of doing business which has resulted from the advances in ICT and commercialization of the Internet. It presents the entrepreneur with improved techniques of doing business. Thus transforming the way people think about business. Entrepreneurs will need skills and knowledge in both business and ICT disciplines to run e-commerce ventures successfully. Also by offering e-commerce education the HIEs will be imparting some of the necessary skills required to function in the 21st century the Kenyan entrepreneurs will therefore compete equally with other entrepreneurs from the developed nations.

The Second Objective of this Paper was to Develop an Understanding of theExtent of Incorporation of E-Commerce and Entrepreneurship in the in the Courses Offered by HIEs

In addressing this objective we adopted a case study design in which the courses offered by the Kenya institute of Management were analysed. Purposeful sampling was adopted where by only those courses taught at the diploma level were analysed. The data for this paper was collected using document analysis of the KIM Diploma syllabus. The data was collected by first identifying the diploma sections of the syllabus and separating the core courses and specialization ones. This was important because our interest was on the core courses. The analysis of the data was based on content analysis methods. The diploma level was important in this study because it is at this level where specialization begins and so the aspect of incorporating entrepreneurship and e-commerce across the various specializations fitted well with our objective. The Kenya institute of Management offers Bridging and Certificate courses however they were outside the scope of this study.

4 Findings

The Diploma course in management consists of three sections and a total of 18 units structured as follows:

Table 1

<table>
<thead>
<tr>
<th>Diploma Section</th>
<th>No of Core units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

There are different entry qualifications for diploma section one and section two. The minimum entry qualification for diploma section is a certificate in management while for section two is a pass in section one, a diploma certificate in a relevant field or a university degree.

We looked at the core units because it’s a requirement for the diploma course regardless of the specialization. The entrepreneurship development option of the diploma was not included in the review because it fell outside the scope of this paper.
In the following data set we present a list of the foundation courses of diploma course in management.

Table 2

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial cost accounting</td>
<td>Practice of management</td>
</tr>
<tr>
<td>Management Information systems</td>
<td>Financial management</td>
</tr>
<tr>
<td>Organization Behaviour</td>
<td>Quality Management</td>
</tr>
<tr>
<td>Economics</td>
<td>Research Methods</td>
</tr>
<tr>
<td>Business Statistics</td>
<td></td>
</tr>
<tr>
<td>Business Law</td>
<td></td>
</tr>
</tbody>
</table>

From the data above a student is expected to take six course units at diploma 1 and four course units at diploma 2 totalling to 10 core units for a student whose entry level was diploma one and four course units for a student whose entry level is diploma 2. In diploma section one the courses are business oriented and in section two they are management oriented.

The diploma course in management is divided into three sections with the last section meant to be a specialization section, the integration of e commerce and entrepreneurship courses should be at the entry level of the diploma course where we have the foundation courses to management. This is contrary to the data we have presented above. In the data there are no stand alone entrepreneurial and e commerce course units which can easily be distinguished.

In the second data set we present a brief summary of each course provided in Table 1 with more detailed descriptions.

Table 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Cost Accounting</td>
<td>This unit is intended to equip the learner with necessary knowledge and the ability to prepare financial statements and basic concepts and techniques of cost accounting for the purpose of decision making.</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>This unit is intended to equip the learners with basic information systems and IT concepts that are applicable to the management functions.</td>
</tr>
<tr>
<td>Organization Behaviour</td>
<td>This unit is designed to equip students with behavioral science concepts and theories for understanding organization Behaviour. The course is intended to reconcile individual and organization demands for maximum organization output.</td>
</tr>
<tr>
<td>Business Statistics</td>
<td>This unit is intended to provide an insight to the application of certain mathematical and statistical concepts to business and management related problems.</td>
</tr>
<tr>
<td>Business Law</td>
<td>This unit aims to acquaint the learner with knowledge of the legal aspects of contract, agency sales of goods, insurance, torts, arbitration and property.</td>
</tr>
<tr>
<td>Economics</td>
<td>This course aims at introducing learners to the basic of pure theory, consumer behavior, production theory, market structures national income, employment, money, banking and finance, international trade and international bodies, micro and macro economic policy issues.</td>
</tr>
<tr>
<td>Practice of management</td>
<td>This unit is intended to equip the learner with knowledge, skills and attitudes necessary to understand the contemporary emerging issues in management.</td>
</tr>
</tbody>
</table>
This review of the courses was intended to examine whether the core units of the diploma course in management have incorporated entrepreneurial and e-commerce knowledge and skills in them. From the course description above the incorporation of entrepreneurship and e-commerce knowledge is minimal. In section one of the diploma, Financial cost accounting and Business Law can be said to have some entrepreneurial orientation though not explicitly stated while in section two the same can be said of Practice of management, Quality Management and Financial Management. The incorporation of E-commerce is non-existent in the courses of both sections.

The Kenya Institute of Management can therefore be said to have not adequately incorporated entrepreneurial and e-commerce knowledge in its diploma course. Taking into consideration of the Enterprise development option being offered at section three though it fell outside our scope. Looking critically at the course we realize that it doesn't address convincingly the issues of nurturing creativity and innovation (ONLY one topic on this area). It does not deal with issues pertaining to harnessing ideas and creation of conducive environment for innovators or ways to motivate the innovators. There is a gap in its contribution towards harnessing entrepreneurial culture in this nation as it lacks the aspects of protecting new businesses through patenting of ideas and products. The creation of an entrepreneurial culture requires training on risk taking, how to calculate risk, evasion of risk, extensive audit of the process.

5 Recommendations and Implications for Educators and Policy Makers in Addressing the Deficiency in the Present Courses Being Offered by HIEs in the Area of E-Commerce and Entrepreneurship

In this section we address the third objective of this paper. This will be in relation to objective one and two. For entrepreneurship and e-commerce to be adopted as core courses across all disciplines decisions have to be made both at macro levels and micro levels. At macro level it will involve the government through all its agencies that are concerned with training and education and at micro levels, decisions will be made at the site of learning.

At the macro level, decisions need to be made on how to:

1. Develop an integrated policy framework that covers the entire education spectrum from primary school to university. Countries like South Africa have been able to introduce entrepreneurship at other levels of education other than tertiary.

2. Influence government agencies such as the Ministries of Trade, Education and Information to further enhance their support for entrepreneurship and e-commerce in higher education. These agencies could help in evaluating training programs in the country and the resources available.

3. Partner with international donor agencies to develop and support entrepreneurial and e-commerce education at various levels in the country.

Entrepreneurship and e-commerce can also be offered at other levels apart from the tertiary level and while at the tertiary level they should not be limited to business subjects. So, at the micro level decisions will need to be made on:
1. The usefulness of entrepreneurship and e-commerce education across diverse subjects and disciplines and promote it to teaching staff.

2. A collaboration across different faculties to help academics appropriate their understanding and application of entrepreneurship in their subject discipline and encourage curricular design that can introduce entrepreneurship and e-commerce into any subject discipline.

3. Developing a broad base of learning models and approaches that enable experimentation, support self-discovery and provide access to practitioners via experiential and effectuation models of learning (GEM, 2008).

4. Developing links with business, entrepreneurial alumni and social enterprises that can help to demonstrate the relevance of entrepreneurship in any subject discipline (GEM, 2008).

For any meaningful realization of any decision, a collaboration will be required between the two levels so as to harmonize the decisions made. In the first place there is a need to establish the training requirements and assess the adequacy of the existing training programs in meeting the needs. This will help to determine the level they need to be addressed. This would enable entrepreneurship to become an informed career option for everyone, which can be exercised when a combination of circumstances make it a viable alternative.

6 Conclusion

With the current situation of unemployment the educator has the responsibility of educating the learner in thinking creatively and changing obstacles into opportunities. Individuals tend to get training in starting a business as part of their formal education. This shows how important schools, colleges and universities are in providing a foundation for entrepreneurship. Training is likely to increase awareness of entrepreneurship, increase self-efficacy and heighten intentions to be entrepreneurial. E-commerce education imparts new methods of doing business using technology to the entrepreneur. For this to be achieved it should be taught alongside entrepreneurship courses. This is yet to be achieved in many institutions of higher learning with a total lack of it in the courses being forward by professional institutions.

7 References


Special GEM Report (2008) A global perspective on Entrepreneurship and Training,
Nair. P (2003) *Can prior learning experience serve as a catalyst in the paradigm shift from traditional teaching methodology to outcome based education practice?*
Pre-service Teachers’ Preparedness in Use of ICTs in School

Mary, W. Ng’ang’a1; Z.K. Kosgei2; Dr J. Kanyiri 3. - (1Moi University, School of Education; 2Moi University, School of Education; 3Moi University, School of Education)

1 Abstract

Many countries around the world are investing in ICT to improve and update the education they provide their younger generations. ICTs at schools will have little impact if teachers are not actively involved in all phases of their integration to the curriculum. To affect teacher students’ willingness to use ICT in education, more attention should be paid to their learning experiences. This study explores the pre-service teachers’ preparedness in use of ICT in teaching and learning process. The main purpose of the study is to establish the level of students’ teacher preparedness and attitudes toward the use of ICT in education. The study sampled 168 second year student-teachers from primary teacher training colleges from Uasin Gishu County. Probabilistic sampling techniques were used. Questionnaires were used instruments of data collection. The data was analysed using SPSS. The findings, most of the teacher trainees lack the adequate skills. The student teachers have positive attitude to integrate ICT in pedagogy. This study recommends attention should be directed to pre-service ICT training and inculcating right attitude for successful integration of ICTs in schools.

Key words: Pre-service teachers, preparedness and ICT

2 Introduction

The teaching profession is charged with the immense task of creating conditions and developing processes for building the human skills and capacities that are considered to be indispensable for economic growth, prosperity, social well-being, and individual development. It is no surprise that in any national education system teachers are considered the most important element where educational quality is concerned. Reform efforts in both developed and developing countries assume that the most direct and effective way of raising instructional quality is to introduce changes in teacher education and recruitment, to improve the knowledge and pedagogical skills of in-service teachers, and to ensure that the organisational conditions under which teachers work promote effective instruction and focus on student learning outcomes (Tondear et al, 2009).

Within the context of knowledge-based, knowledge-intensive teaching, the latest revolution in the education sector has to do with the potential role of ICTs in introducing radical change to teaching and learning processes. ICTs include radio, television, computers, and the Internet. For some decades now, technologies have been seen, in both developing and developed countries, as tools for expanding the provision and coverage of education at a reduced cost. Although this has been true in several cases, ICTs nowadays are considered preferably as a means of offering high-quality education that is centred on student learning and geared toward relevant skills in demand in the knowledge economy.
Simply having ICT in schools will not guarantee their effective use. Regardless of the quantity and quality of technology placed in classrooms, the key to how those tools are used is the teacher; therefore teachers must have the competence and the right attitude towards technology (Kadel, 2005). Students’ confidence on ICT can be explained through the attitude and behaviours of their teachers. Teachers’ behaviour is a critical influence on students’ confidence and attitude towards ICT as they provide important role model to their students (Derbyshire, 2003). The literature suggests that lack of adequate training and experience is one of the main reasons why teachers do not use technology in their teaching. This also eventuates in teachers’ negative attitude towards computer and technology. In addition, lack of confidence leads to reluctance to use computers by the teachers. Attitude of pre-service and in-service teachers towards computer and technology skills can be improved by integrating technology into teacher education. Findings have revealed that a significant relationship exist between computer attitude and its use in institutions for pre-service teachers and also for serving teachers in the affective attitude, general usefulness, behavioural control, and pedagogical use (Kadel, 2005).

In most cases, the teacher is key to effective implementation of the use of computers in the educational system and given that teachers have tremendous potential to transmit beliefs and values to students, it is important to understand the biases and stereotypes that teachers may hold about the use of computers and the factors that act as facilitators to teachers’ positive computer usage. The attitudes of teachers are directly related to computer use in the classroom. The success of student learning with computer technology will depend largely on the attitudes of teachers, and their willingness to embrace the technology (Teo, 2008). Gaining an appreciation of the teachers’ attitudes towards computer use may provide useful insights into technology integration and acceptance and usage of technology in teaching and learning.

Providing some insight into the issue of teacher preparedness to use ICTs for learning and teaching, Granger, et al (2002), explain that the “relationship between teachers’ ICT skills and successful implementation is complex.” The results of their study of schools suggests that there are a range of contributing issues including teacher “attitudes, philosophies, communication, and access to skills training”, in addition to having the necessary equipment, support, and education. Baskin and Williams (2006) posit that human factors are the most critical in nurturing the ICT culture and growing the critical mass of teachers able to sustain the use of ICTs effectively in their teaching. To increasing the preparedness of pre-service teachers to use ICTs, teacher educators need to focus on teacher thinking and teacher beliefs to facilitate changes in the teaching learning process. From these findings it would seem clear that human factors such as attitudes and beliefs have a significant influence on teacher behaviours, and consequently their preparedness to use ICTs for learning and teaching. Given the stated importance of human factors, and the apparent influence of teacher preparation, it follows that there is a need to understand each of these dimensions if pre-service teachers are to be well prepared to use ICTs for learning and teaching.

ICT skills play a key role in promoting the economic development of a country. Many of the productivity gains in the developed world economies over the past two decades can, to a great extent, be attributed to the impact of ICT. The Government appreciates and recognises that, an ICT literate workforce is the foundation on which Kenya can acquire the status of a knowledge economy. Against this background, the Government will make education the natural platform for equipping the nation with ICT skills in order to create a dynamic and sustainable economic growth. The Government will, therefore, make education the avenue for equipping the nation with ICT skills in order to create a vibrant and sustainable economic growth (ROK, 2005). In the e-Government strategy and national ICT policy, considerable attention is given to education, particularly schools as agents with the greatest potential to address challenges of the digital divide, expansion of learning opportunities and e-Government.

The Ministry of education’s policy on ICT is to integrate ICT education and training into education and training systems in order to prepare the learners and staff of today for the Kenyan economy of tomorrow through the enhancement of the ICT skills. In terms of operational
framework, the policy envisages establishment of a coordination unit under ICT division. It is also expected that the investment will be able to harmonise ICT in education and the implementation of e-Government strategy. One of the strategies the government has adopted through Kenya Education Support programmes (KESSP) is to Supporting teacher training colleges and universities in development and production of ICT teachers (ROK 2005).

In addition, a number of international organizations have developed, or started developing partnerships with MOES&T to facilitate the use of ICT in Government offices and educational institutions. The Ministry’s policy on ICT is to integrate ICT education and training into education and training systems in order to prepare the learners and staff of today for the Kenyan economy of tomorrow and therefore enhance the nation’s ICT skills. To do this the policy paper proposes the following strategies among others: Developing a policy on the provision of adequate infrastructure at all levels of education and training by bringing together the efforts of all stakeholders; and providing computers to primary, secondary schools and TTCs. Despite these efforts, there is still a long way to go before the potential of ICT in actual classroom learning processes is realized. In both developed and developing countries there is mounting skepticism about the learning outcomes of massive investments in ICT. This study sought to investigate the pre-service teachers’ preparedness in use of ICT in schools as a crucial part of ICT integration in education (ROK 2005).

Statement of the Problem

Computer literacy is becoming a baseline requirement for many jobs, and demand for highly skilled ICT workers has increased where new technologies have been introduced (World Bank 2003a). Because of rapid development in ICT, especially the Internet, traditional initial teacher training as well as in-service continued training institutions worldwide are undergoing a rapid change in the structure and content of their training and delivery methods of their courses. However, combining new technologies with effective pedagogy has become a daunting task for both initial teacher training and in-service training institutions. The challenge concerning full utilisation of ICT in education closely concerns the teaching profession. ICT teachers seem to be especially hard to attract, recruit, and retain in secondary schools (OECD 2004a), and the ICT training needs of secondary school teachers with no or little knowledge of ICT in teaching and learning are enormous. According to infodev (2005), even after over a decade of ICT use in the education sector in developing countries, the ICT for education and development communities is still hard pressed leading to the following questions: are teachers fully prepared to integrate ICT in education? Do they have the competence and the right attitude to integrate ICT in teaching and learning process?

A lot of studies conducted on computer and ICT have focused mainly on practicing teachers’ competence and attitude in Kenyan schools to the detriment of research on pre-service teachers. Gaining an appreciation of student-teachers’ attitude and preparedness in the use of ICT may provide useful insight into the future of technology integration, acceptance and usage in teaching and learning education institutions in Kenya and other developing countries. Therefore this study sought to establish the pre-service teachers’ preparedness in use of ICT.

Purpose of the Study

The main purpose of the study was to establish the pre-services teachers’ preparedness in use of ICT in schools.

Study Objectives

The study was guided by the following specific objectives.

1. To find out the extent of pre-service teachers’ preparedness in use of ICT in schools
2. To investigate the attitude of pre-service teachers’ towards the use of ICT in schools.
3. The influence of gender on pre-service teachers’ attitude towards ICT.
Theoretical Framework

This study is based on Technology Acceptance Model (TAM) developed by Davis (1989). TAM, is based on the Theory of Reasoned Action (TRA), a model used for predicting and explaining behaviour in a range of contexts (Davis, *et al.*, 1989). The technology acceptance model (TAM) adapts the belief-attitude-intention-behaviour relationship to a user’s ICT acceptance. TAM predicts user acceptance based on two specific behavioural beliefs: perceived ease of use (PEU) and perceived usefulness (PU), which determine an individual’s behaviour intention (BI) to use ICTs (Davis *et al.*, 1989).

Figure 1: Technology Acceptance Model

In the model, behavioural intention is seen as the dependent variable. The behavioural intention influences the behaviour to use the technology in positive or negative way. Perceived usefulness, perceived ease of use and subjective norm are independent variables which impact on the attitude towards ICT use.

3 Literature Review

**ICT in Teacher Education**

Education is at confluence of powerful and rapidly shifting educational, technological and political forces that will shape the structure of educational systems across the globe (UNESCO, 2002). The ICT challenge traditional conceptions of both teaching and learning by configuring how teachers and learners gain access to knowledge. Research indicates that ICT can change the way teachers teach and that it is especially useful in supporting more student-centred approaches to instruction and in developing the higher order skills and promoting collaborative activities (Haddad, 2003). Recognizing the importance of ICT in teaching and learning, a majority of the countries in the world have provided ICT teacher training in a variety of forms and degrees. Even though many teachers report that they have not had adequate training to prepare themselves to use technology effectively in teaching and learning, there seem to be several efforts around the world in which countries are effectively using technology to train teachers, and/or are training teachers to use technology as tools for enhancing teaching and learning. ICT teacher training can take many forms. Teachers can be trained to learn how to use ICT or teachers can be trained via ICT. ICT can be used as a core or a complementary means to the teacher training process (Collis and Jung, 2003).

**ICT Competences**

In achieving excellence in schools, it is important to ensure that teachers are able to integrate technology into the curriculum. As such, the groundwork must be laid at the trainee or pre-service teacher’s level. To do otherwise is to produce future teachers with underdeveloped skills in the use of technology. In the course of their training, pre-service teachers should be provided with the tools and experiences that will be useful for the regular activities in their future job: classroom instruction, research, and problem solving. Using technology enables pre-service teachers to arrange their
environment and adjust their instructional strategies. On the part of teacher educators, there is a need to understand the dimensions that influence pre-service teachers’ attitudes towards computers as a means for effective development of teacher training curriculum that will prepare teachers to face the challenges in the information age (Fisher, 2000). A great number of pre-service teachers are not equipped with basic computer operational skills; therefore, for teachers to be able to integrate ICT into the school curriculum, groundwork must be done at the pre-service teacher education level. Teacher educators need to understand the dimensions of pre-service teacher attitude as a means of developing teacher education curriculum relevant for the contemporary knowledge age Tondear (2009).

Student-teachers need to be skilled in the use of ICT and also to be able to critically evaluate strategies for the acquisition and the appropriate application of ICT in diverse curriculum area. Major ICT competencies required by teachers were highlighted by Kirschner and Woperies (2003) to include competency in making personal use of ICT; mastery of a range of educational paradigms that make use of ICT; competency in making use of ICT as minds tools; competency in using ICT as tool for teaching, competency in mastering a range of assessment paradigms which involves use of ICT; and competency in understanding the policy dimensions of the use of ICT for teaching and learning. Pre-service teacher education should focus on the need for student-teachers to have ICT skills for their own use in the preparation of materials for teaching and learning activities; the need to facilitate the direct use of ICT in students’ learning activities within the classroom situation; and the need for teachers to develop in their students a critical awareness of ICT applications and the social implications Kirschner and Woperies (2003).

Similarly, Marija and Palmira (2007) classified ICT competencies into two: basic and educational ICT competence. These competences are further elaborated in the ICT competency standards for teachers developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2008a, 2008b). Based on these documents, the information and communication technology competency is comprehensive than mere focus on ICT skills. Rather, it is a comprehensive approach to education reform in six broad areas of policy, curriculum and assessment, pedagogy, the use of technology, school organization and administration, and teacher professional development. The UNESCO (2008a, 2008b) standards for teachers are meant to improve teachers’ practice in using ICT in an innovative way for teaching, collaborating with colleagues, and for school organization.

Study showed that competence in ICT could be seen as a question of interest in ICT, where men are more interested in ICT than women. The study thus confirmed the view of gender and competence as actively constructed in a social process. This is because understandings of the terms were negotiated among individuals in the groups studied, and therefore used as norms with which individuals understood themselves and their behaviours. Those females tend to be less interested in computer and use them less often in their spare time. In addition, studies have established that girls are less confident than boys in their computer skills, and that some international studies have found that boys scored better than girls in computer related knowledge and skills in vast majority of countries. In addition, the three computer related occupation (computer scientists, computer engineers and system analysts, and computer science and engineering) are the top career choices for boys. Female also have more negative attitude towards computer (Bebetsos & Antoniou, 2008), thus they are often less computer literate than males (Kadel, 2005; this may result in different ways of using the computer.

Pre-service Teachers’ Attitude on Use of ICT

The success of any initiatives to implement technology in an educational programme depends strongly upon the support and attitudes of teachers involved. It has been suggested that if teachers believed or perceived computers to be fulfilling their own or their students’ needs they are likely to resist any attempts to introduce technology into their teaching and learning (Askar & Umay 2001). Of the factors that have been listed to affect the successful use of computers in the classroom are
teachers’ attitudes towards computers and these attitudes, whether positive or negative, affect how teachers respond to technologies. This in turn affects the way students view the importance of computers in schools and affects current and future computer usage. No matter how sophisticated and powerful the state of technology is, the extent to which it is implemented depends on teachers having a positive attitude towards it (Teo 2008).

According to Ajzen and Fishbein (1977), attitudes refer to the ability to predict a person’s behavior toward certain targets. Ajzen (1988) described an attitude as a predisposition to respond favorably or unfavourably to an object, person, or event. The strong relationship of computer-related attitudes and computer use in education has been emphasized in many studies.

Attitudes towards computers influence teachers’ acceptance of the usefulness of technology, and also influence whether teachers integrate ICT into their classroom. A major reason for studying teachers’ attitudes is that it is a major predictor of future classroom computer use. Huang and Liaw (2005) also state that among the factors that affect the successful use of computers in the classroom, teachers’ attitudes towards computers play a key role. Khine (2001) studied 184 pre-service teachers and found a significant relationship between computer attitudes and its use in the institution.

Sime and Priestley’s (2001) study of student teacher views of ICTs in teaching found the perception that even when resources were limited external variables and access to computer suites was problematic the individual teachers’ attitude was the vital factor in determining ICT use. The study found that although lack of equipment was considered an important factor it was clear that teachers’ attitudes play the most crucial role.

In many developed countries, nearly all schools are equipped with the infrastructure to conduct ICT mediated teaching and learning. Positive teacher attitudes towards computing are critical if computers are to be effectively integrated into the school curriculum. A major reason for studying teachers’ attitude towards computer use is that it is a major predictor for future computer use in the classroom. This finding was corroborated by Yuen and Ma (2001) who, using the Chinese Computer Attitude Scale for Teachers (CAST), found that 216 secondary teachers in Hong Kong had reported the instructional use of computers and their results revealed that affective attitudes, general usefulness, behavioural control, and pedagogical use to be significant in determining the use of ICT. Most teachers believe that the amount of computer experience has a positive effect on attitude towards computers (Myers & Halpin 2002).

Yildirim (2000) found that teachers who used computers more would tend to develop positive attitudes that promote further use of the computer in their daily teaching tasks and conduct activities that require computers to play a major role in, for example, computer-mediated forums.

Computer attitudes are influenced by different variables. Examples from recent research include perceived usefulness (PU), computer confidence, training, gender, knowledge about computers, computer anxiety and liking, and computer experience. In most cases, many of these factors interact with one another to impact on attitude towards computers Yildirim (2000) and Sadik (2006). Wong et al. (2005) examined the use of the Internet among 310 pre-service teachers and found that pre-service teachers’ use of the Internet was influenced by support from friends, confidence level, attitude towards the Internet and PU.

4 Findings and Discussions
To investigate the pre-service teachers’ preparedness to use ICTs for learning and teaching, the attitude and beliefs of the participants was examined by questions relating to their experience with, and beliefs about ICTs, as well as their confidence to use them, followed by specific items checking how and how much they expected to use ICTs in the classroom.

Demographic Information
The respondents were asked to indicate their gender, from the findings, 53.4 percent were female while 46.6 percent were male students this shows. The respondents were further asked to indicate
their age. Most of the respondents were aged between 20-30 years (72.1%) while only 4.3 percent were below twenty. Table 1 below summarises the respondents’ background information.

Table 1: The Age and Gender of the Respondents

<table>
<thead>
<tr>
<th>Respondents age</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 20 years</td>
<td>7</td>
<td>4.3</td>
</tr>
<tr>
<td>20-35 years</td>
<td>121</td>
<td>72.1</td>
</tr>
<tr>
<td>Above 35 years</td>
<td>40</td>
<td>23.6</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>78</td>
<td>46.6</td>
</tr>
<tr>
<td>Female</td>
<td>90</td>
<td>53.4</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The above findings indicate that both male and female students were fairly represented in the study which is necessary in determining the preparedness of the teachers as both genders are expected to be fully prepared and have the right attitude for ICT integration in learning. The findings also indicated that most of the pre-service teachers were young. It was important to determine the age since previous studies have indicated that age is a factor that influences adoption of technology among the teachers. This study found that most teachers were young and in this era of technology expected to readily accept the technology.

Pre-service Teachers’ Preparedness in Use of ICT School

To find out the extent of pre-service teachers preparedness in use of ICT, the study asked the respondents to indicate their experience in use of ICT and their level of competence in use of ICT as indicator of their preparedness. The findings are presented as follows:

**Student–Teachers Experience in Use of ICT**

The study sought to establish the respondents experience in use of ICT. The student teachers were asked to indicate how long they have used computers and related technologies. Most of the respondents indicated that they had used ICT between 2-4 years (57.5%), less than 2 years (23.1%) and above 4 years (19.4%).

The findings show that the pre-service teachers were not new to ICT and ICT related technologies since most indicated that they had used it for more than two years. This means that they had the some experience and thus were prepared for the ICT.
Student Teachers’ First Encounter with Computers and Internet

Based on the student-teachers’ responses on their experience in the use of ICT, the study elicited further information on where the student-teachers acquired the ICT experience. The Respondents were asked to indicate where they first encountered computers and Internet: 30.2 percent in computer training colleges, 26.2 percent said they encountered computers first in high schools, 18.3 percent were taught by family and friends while 23.3 percent encountered the computers in the college. Table 2 below summaries the findings:

Table 2: Student Teachers’ First Encounter with Computers and Internet

<table>
<thead>
<tr>
<th>Computer first encounter</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High schools,</td>
<td>44</td>
<td>26.2</td>
</tr>
<tr>
<td>Computer training colleges</td>
<td>51</td>
<td>30.2</td>
</tr>
<tr>
<td>Taught by family and friends</td>
<td>31</td>
<td>18.3</td>
</tr>
<tr>
<td>Teacher training college</td>
<td>39</td>
<td>23.3</td>
</tr>
<tr>
<td>Never encountered</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

These findings indicate that most student-teachers had prior knowledge of computers and Internet having acquired their ICT competences independent of teacher training college. This confirms the findings that the student-teachers had some experience in ICT use.

Pre-service Teachers’ Competence in Use of ICT Competence

The study sought to establish the pre-service teachers’ competence in use of ICT. A list of task/ICT related activities was identified and the respondents asked to rate their level of competence in a scale of 1-5 which included: unable to use, difficult, average, easy, very easy. The findings show that most of the respondents are more competent in communication with a mean of 4.36 and are least skilful in Design presentations with multimedia elements (2.75). Further a one sample t-test was carried out to test the significance of the means. At test value =3 and level of significance 0.000, the findings show that most of these means are not significantly different from 3, apart from PowerPoint presentation (t=-8.376 p=0.000) and Data analysis (t=-7.635 p=0.000). Table 3 below summarizes the findings.

Table 3: Pre-service Teachers’ Competence in Use of ICT Competence

<table>
<thead>
<tr>
<th>ICT related skill</th>
<th>Test =3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Data sorting and storage</td>
<td>3.19</td>
</tr>
<tr>
<td>Perform basic word-processing tasks</td>
<td>4.17</td>
</tr>
<tr>
<td>Communicate with others via email and other network tools</td>
<td>4.35</td>
</tr>
<tr>
<td>Internet /web browsing</td>
<td>4.10</td>
</tr>
<tr>
<td>PowerPoint presentation tools</td>
<td>3.21</td>
</tr>
<tr>
<td>Data analysis</td>
<td>3.11</td>
</tr>
<tr>
<td>Perform advanced document formatting tasks</td>
<td>3.07</td>
</tr>
<tr>
<td>Design presentations with multimedia elements</td>
<td>2.75</td>
</tr>
<tr>
<td>Create simple images</td>
<td>3.17</td>
</tr>
<tr>
<td>Edit and design graphics</td>
<td>2.94</td>
</tr>
</tbody>
</table>
The above means indicate low levels of competence in use of ICT among the student-teachers since 3 indicates average ability to perform the ICT tasks. The findings indicate that most of the student teachers lack full competence in use of ICT. This is because the findings show that most of them rate their level of ICT competence as average and below. This means that the pre-service teachers only have basic ICT competences which are not enough for them to fully utilize ICT in teaching and learning process.

Respondents’ Level of Expertise in Use of ICT

The respondents were further asked to rate their level of expertise into five level which included: No expertise (cannot use computers at all), Fair (basic computer operations and word processing), Good (basic computer operations and word processing, Able to use all office applications), Very good (Able to use all office applications for school related work and use of internet and its related resources) and Excellent (Internet surfing, and searching, development of web pages, participation in e-learning among other basic computer operations). Results indicate that 42.27% of the male teacher-students said the level of expertise is fair compared to 47.72% female student teachers, 32.14% male said good compared to 27.32% female while only 4.17% male student-teachers said they were excellent as shown in figure 2 below.

Figure 2: Pre-Service Teachers’ Level of Expertise in Use of ICT

The findings above confirms that most pre-service teachers are not fully ICT competent since most of them rate their ICT expertise as fair. This means that the teachers are not fully prepared to use ICT in teaching learning process.

Pre-service Teachers’ Attitude on Use of ICT in their Career

To find out the pre-service teachers attitude on use of ICT for their future career, the teachers students were given some statement that indicated the attitude they had on ICT. They were asked to give their opinion regarding the statement in a 1-5 likert type scale as strongly disagree, disagree, undecided, agree and strongly agree. The mean was the computed from the responces and a chi-square ran to establish the relationship between the attitude and the gender of the respondents. From the findings the student-agreed that ICT provides better learning experiences with means of 3.96 for male and 3.73 for female and that teacher education should include ICT (3.89 male, 3.80 female). The teachers did not agree that they had a phobia for ICT equipments with means of 2.28 male and 2.20 female. The chi-square analysis indicated that there was no significant difference between the male and female attitude towards the use of ICT. Table 4 below presents the findings.
Table 4: Pre-service Teachers’ Attitude on Use of ICT their Career

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Chi-square</th>
<th>Asymp. Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT enhances students’ learning</td>
<td>3.18</td>
<td>3.52</td>
<td>3.11</td>
</tr>
<tr>
<td>Teacher education should include ICT</td>
<td>3.89</td>
<td>3.80</td>
<td>3.36</td>
</tr>
<tr>
<td>ICT provides better learning experiences.</td>
<td>3.96</td>
<td>3.73</td>
<td>2.57</td>
</tr>
<tr>
<td>I would work harder if I could use ICT</td>
<td>3.23</td>
<td>3.02</td>
<td>2.34</td>
</tr>
<tr>
<td>I learn more from ICT than I do from books</td>
<td>3.52</td>
<td>3.63</td>
<td>1.51</td>
</tr>
<tr>
<td>ICT makes course more interesting</td>
<td>3.75</td>
<td>3.66</td>
<td>1.56</td>
</tr>
<tr>
<td>ICT gives opportunity to learn more</td>
<td>3.35</td>
<td>3.19</td>
<td>3.10</td>
</tr>
<tr>
<td>ICT skill is worthwhile</td>
<td>3.47</td>
<td>3.40</td>
<td>3.49</td>
</tr>
<tr>
<td>ICT is useful in dissemination of information</td>
<td>3.69</td>
<td>3.41</td>
<td>5.54</td>
</tr>
<tr>
<td>I have phobia for ICT equipment.</td>
<td>2.28</td>
<td>2.20</td>
<td>0.53</td>
</tr>
<tr>
<td>ICT can address the needs of school system.</td>
<td>3.44</td>
<td>3.37</td>
<td>3.23</td>
</tr>
</tbody>
</table>

DF=3, level of confidence=95%

The findings above indicate that the pre-service teachers generally have a positive attitude towards the use of ICT. However as shown in the findings the most of the means are slightly above 3 which means that the teachers may not be rated as having very positive attitude which indicates that they are not very certain on the use of ICT in their career.

From the table it is seen that there is no significant difference in the attitude of male and that of female student-teachers’ towards ICT as can be observed from the results on all the items. The chi-square analysis shows that there is no significant difference between the attitude of male and that of female student-teachers’ toward ICT.

**Pre-service Teachers’ Perception of the Importance of ICT in their Teaching Career**

The study further elicited the opinion of the student—teachers on the importance of ICT in their teaching career. The respondents were asked to rate their opinion as very important, Important, of some Value and of no value. Most of the respondents indicated that it was very important (48.3% male and 46.1% female) only 4.9 male and 5.8 female indicated it was of no value as shown in figure 3 below.

Figure 3: Pre-service Teachers’ Perception of the Importance of ICT in their Teaching Career
The findings above show that most of the pre-service teachers believe that ICT is important in their teaching career. This confirms their attitude which is generally positive on use of ICT. This means that the student-teachers have the right attitude to use ICT in school.

**Discussions**

This study investigated the pre-service teachers’ preparedness and attitude towards information and communication technology. The teachers were sampled from primary teacher training colleges in Uasin Gishu County. The first objective of the study was to establish the extent of preparedness among the student teachers’ in use of ICT. The results indicated that majority of the student-teachers lack adequate skills in various ICT applications that are important to support and enhance their learning experiences and ICT integration in instruction. Most of the student teachers have basic ICT skills which may not be enough if they have to fully integrate ICT schools. Further exploration of how student-teachers gained their competency in the use of ICT revealed that majority of the students gained their ICT competence through training outside the teacher training colleges. This finding implies that the ICT training provided by the TTCs may not be adequate to help the student-teachers integrate ICT in their teaching since they only get basic skills which most of them already had before joining the TTCs. The findings are similar to those of Mudasiru and Modupe (2011) who found that majority of the student-teachers at the University of Ilorin lack skills in various ICT applications and equipment operations that are important to support and enhance their learning experiences and ICT integration in instruction. There is therefore the need for more emphasis to be placed on exposing student-teachers to advanced courses in ICT as suggested by Marija and Palmira (2007) who classified ICT competencies into two: basic and educational ICT competence. The UNESCO (2008a, 2008b) further asserts that standards for teachers are meant to improve teachers’ practice in using ICT in an innovative way for teaching, collaborating with colleagues, and for school organization. The information and communication technology competency is comprehensive than mere focus on ICT skills.

Results further indicated that majority of the student-teachers have positive attitude. This positive attitude is an important indicator of willingness and first step in effective ICT integration in curriculum. This study also revealed no significant gender difference in their attitude towards ICT. Yildirim (2000) found that teachers who used computers more would tend to develop positive attitudes that promote further use of the computer in their daily teaching tasks. This study also revealed no significant gender difference in their attitude towards ICT. The findings are consistent with the findings of previous studies that showed that male students are likely to be more competent than female students are in the use of ICT Derbyshire (2003).

**Conclusions and Recommendations**

In this study, it was discovered that student-teachers have basic computer competence, student-teachers indicated competency in general computer operation such as word processing, Communicate with others via email and other network tools and Internet/web browsing. The findings reveal the need to introduce student-teachers to more courses on ICT with needed hand-on experiences so as to promote effective integration of ICT throughout the curriculum by student-teachers.

The study further concludes that the pre-service teachers have the positive attitude towards use of ICT in schools. Therefore this attitude should be harnessed in order to ensure that ICT is fully integrated. The study further revealed that gender had no significant influence on the attitude of student-teachers towards ICT. Following these findings, the study recommends that:

The training programmes for teachers should be restructured in such a way that the student-teachers will be exposed to advanced courses in ICT aimed at assisting teachers in ICT integration in pedagogy.
Provisions should be made for lecturers to be able to integrate ICT-based methodology into their lectures, and also, all classrooms should be equipped with necessary infrastructure in order to enhance the skills and positive attitude that the student teachers already have.

References


Wong S.L., Ng S.F., Nawawi M. and Tang S.H. (2005). “Experienced and inexperienced Internet users among pre-service teachers: their use and attitudes toward the Internet.” In Journal of

