Chapter 5:

Challenges faced by SMEs in developing countries adopting ICT: A case study from the hotel industry in Sri Lanka

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Abstract: This paper is designed to reveal and analyze the key challenges faced by SMEs in the hotel industry in a developing country when adopting information communication technologies (ICT). This will then hint for a set of potential determinates that affect the adoption of ICT and allow suggestions for suitable recommendations to overcome such challenges. The study uses Rogers (1995) model of adoption of innovations to study adoption and use of ICT. The study then contribute by describing the current situation of SMEs in a developing country regarding usage of ICT, as it highlights some of the main
challenging factors which impact the adoption and use of ICT in SMEs. The findings suggest that ICT is perceived as advantageous for the hotel, but their limited access to finance and human capital delimits their capability to exploit advanced ICT. Universities could spur further adoption of ICT by continuing delivering ICT skilled candidates.

**Keywords:** ICT, SME, adoption of innovations, developing countries, Sri Lanka, case study.

1 **Introduction**

In today’s increasingly globalized world, using Information Communication Technology (ICT) is very important for ensuring success for Small and Medium Enterprises (SMEs). Business network around the world relies heavily on ICT in their daily work. According to Alam and Noor (2009), ICT is rapidly changing the way enterprises and consumers interact, this shows itself in a more and more globalizing production, rapidly changing consumption patterns, new ways of organizing work, constantly improved business methods and an expanding international trade. Many SMEs use ICT in financing, reporting and sales activities. Both the development of ICT, the shift to a knowledge-based economy and the introduction of easily accessible ICT is increasingly important for SMEs. As a result SMEs are able to reinvigorate their business models, achieve new competitive advantages and by this contribute toward growth of the national economy (UNDP, 2004).

In most of the countries the SME sector is the largest provider of employment, and SMEs contributes substantially to new job creation. Also SMEs is a major source of technological innovation and new product development. SMEs play a particularly important role in developing countries where poverty is most severe. As explained by Gamage (2003), SMEs highly contribute to growth of Gross Domestic Product, as well as SMEs is a major source of employments. SMEs also contribute to uplift on innovations
and is stimulating to other business activities in larger business entities. By providing jobs and serving local needs, SMEs then contribute to social development in underdeveloped countries.

SMEs share of the economy is substantially in Sri Lanka, in manufacturing sector 96 per cent of industrial units, 36 per cent of industrial employment and 20 per cent of value added are accountable by the small and medium scale industries in Sri Lanka (Task Force, 2002). A study carried out by the United Nations Development Project (UNDP) estimates that SMEs in Sri Lanka (firms with less than Rs. 16 Million in assets) account for 90 percent of the total number of firms generating 70 percent of employment and account for 55 percent of the Gross Value added by the private sector. (Main Report, SPREAP, 2003). Therefore, In Sri Lanka also, SMEs have gained wide recognition as a major source of employment, income generation, poverty alleviation and regional development over the years. In Sri Lanka SMEs contribution is most beneficial to the economic activity in agriculture, mining, manufacturing, construction and service sector industries. Especially the southern province of Sri Lanka relies heavily on entrepreneurial activities in SMEs.

Although SMEs play an important role in every country, SMEs face a lot of challenges due to the rapidly changing business environment. In many instances, the skills, competencies and resources available to SMEs are not adequate for to face the continuous technical change, market uncertainties and the high level of competition. Moreover, as the enterprise grows, entrepreneurs must stay focused to continue to improve their business and its product and services. This as the entrepreneur must have an understanding of the market needs and he should be able to collect and interpret customer feedback properly. In this regard, adopting ICT is a very important technique and SMEs could use ICT in order to grow and to become more innovative. One industry facing increased demand from hard-to-please costumers is the hotel industry. Since the civil war ended in 2009, there has been a sharp rise in tourists arriving in Sri Lanka (Sri
Lanka Tourism Development Authority, 2010). As explained by Alam and Noor (2009), the most SMEs today minimize their wastage of time, knowledge and resource due to adopting of ICT for their business activities. According to Alberto and Fernando (2007), SMEs can enhance their business activities using ICT so enabling them to compete and cooperate with large enterprises. Kapurubandara and Lawson (2006) claim that SMEs does not fully benefit from the potential ICT offers, suggesting that SMEs face significant and unique challenges in adopting ICT and e-commerce.

The daily operation of SMEs differs from the operation of large enterprises; effectiveness of ICT management in SMEs is particularly critical (Montazemi, 2006). Most SMEs perceive the integration of ICT into their business operations as risky, complex, time-consuming, and an expensive initiative (NOIE, 2000). According to Kapurubandara and Lawson (2006), there are very few studies about ICT adoption in developing countries. As a developing country, the SMEs in Sri Lanka are not utilizing ICT as much as SMEs in more developing countries are able to. However there is a dearth of data and research about ICT usage of SMEs in developing countries, and especially in a Sri Lankan context. The existing research on ICT in Sri Lanka could be outdated, as their reliability for today’s context is become questionable as technology is rapidly changing.

Very limited knowledge is available regarding the challenges SMEs faces related to adoption and use of ICT with regard to the southern province of Sri Lanka. This region is predominantly a rural area and is affected by lacking infrastructure and other problems faced by rural areas of a developing country (Main Report, SPREAP, 2003). On the other hand, a concerted effort was made by the government to speed up the development process in the region during the recent past. With those changes, business environment is rapidly changing and it is important to have updated knowledge on the current situation faced by SMEs adopting and using ICT.
Despite the importance of ICT and emphasis by various governments to encourage SMEs to adopt ICT, it has been reported that SMEs for various reasons have been slow in adopting ICT (Houghton and Winklhofer, 2004). In this context this research is designed to reveal and analyze the key challenges faced by SMEs in the hotel industry situated in developing countries in adopting and using information communication technologies. The research question addressed by this study is how SMEs in the hotel industry in developing countries adopts and utilizes ICT in their business activities. The study will then contribute by describing the current situation of SMEs in a developing country regarding adoption and usage of ICT, to highlight some of the main challenges which impact the adoption and use of ICT in SMEs. This allows some recommendation to overcome such challenges.

2 Theoretical framework
ICT usage in business activities can be effective and efficiently and ensure business success as ICT is usually more accurate and fast than manually routines. ICT has the potential to support many business activities within a firm and could influence its performance; performance such as productivity, profitability, market value, and market share (Laudon and Laudon, 2006). ICT also affects intermediate performance measures such as process efficiency, service quality, cost savings, customer satisfactions, as well as organizational and process flexibility (Alberto and Fernando, 2007). Businesses adopting and using ICT can obtain benefits as it allows quick access and more accuracy to vital information in a competitive environment (Laudon and Laudon, 2006).

There are many examples of benefits from ICT usage for SMEs in their daily business activities. Increased annual profit, more effective employees, improved accuracy and quick customer satisfaction is some of the benefits SMEs can gain by adopting and using ICT. The ICT usage could be computer (web sites, email, database), and communication (telephone and internet) usage. Firms using ICT needs to have personnel that are able to
use the ICT in order for the firm to reap these benefits. If the SMEs manages to reap these benefits depends on their ability to recruit ICT skilful graduates (Vanita et al, 2009).

In Sri Lanka there is no official definition of SMEs. The main criteria used are the number of employees, the size of fixed investment and the nature of business and the sector, i.e. formal or informal in which the industry operates (Cooray, 2003). According to Dasanayaka (2009), most definitions categorizes SMEs to have between 10-100 employees and an invested capital between 2 and 25 million Sri Lankan Rupees (17,000 – 224,000 USD). Previous studies have shown that the adoption of ICT by SMEs is still lower than expected (Yu, 2006; Pavic et al., 2007). Several barriers to ICT adoption have been identified, including: lack of knowledge about the potential in ICT use, a shortage of resources such as finance and expertise, and lack of skills (Utomo, 2001 as quoted in Hashim, 2008). As revealed by Hashim (2008), some studies looked into a broader perspective of internet adoption and found that environmental factors such as government intervention, public administration, and external pressure from competitors, suppliers, and buyers play a key role in the adoption and implementation of ICT, especially in e-commerce. Other studies focused instead on organizational factors, such as organization support and management support; however, few studies focused on skills and use among the owners.

According to Kapurubandara and Lawson (2006), the same level of ICT adoption is not evident among all SME, suggesting that SMEs face significant and unique challenges in adopting ICT. Kapurubandara and Lawson (2006) have categorized internal and external barriers that impede adoption of ICT by SMEs in developing countries. The internal barriers include owner manager characteristics, firm characteristics, cost and return on investment, and external barriers including infrastructure, social, cultural, political, legal and regulatory factors. Houghton and Winklhofer (2004) have reported a slow response of SMEs relating to adoption of ICT. Shiels et al. (2003) found that characteristics of the
firm and industry sector are contributory factors to the adoption and exploitation of ICTs by SMEs. Thus, it is important to understand the barriers that inhibit SMEs in Sri Lanka and how SMEs could overcome these barriers if Sri Lankan SMEs are to take advantage of ICT usage.

When regarding ICT as an innovation, an innovation-decision model developed by Rogers provides a theoretical framework for studying the challenges faced by SMEs in Sri Lanka adopting and using ICT. Roger’s (1995) models have previous been used in developing countries explaining adoption of ICT (Hashim, 2008; Richardson, 2009). An innovation is defined as an idea, practice, or object that is perceived as new by an individual or other unit of adoption (Rogers, 1995, p. 11) while adoption is the decision to make full use of an innovation as the best course of action available (ibid, p. 21). According to Rogers model there are five major factors determining the rate of adoption of an innovation: its relative advantage, its compatibility, its complexity, its observability and its trialability. The relative advantage of the innovation is the degree to which an innovation is perceived as better than the idea it substitutes. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. Complexity is the degree to which an innovation is perceived as difficult to understand and use, while observability is the degree to which the results of the use of an innovation are observable to oneself and others. Trialibility is the degree to which an innovation can be experimented or practiced in small scale before the adoption is fully implemented.

Kapurubandara and Lawson (2006) find that the cost and return on investment is a vital basis for decision making regarding purchasing and use of ICT, and Rogers (1995) also argues that the relative advantage of the innovation is important in the decision process. Vanita et al. (2009) claim that a SME needs trained personnel in order to reap the benefits of an ICT adoption. This resonates with Rogers claim that the more an
innovation is compatible with the present organizational structures, the easier it is to implement the adoption. NOIE (2000) reports that the complexity of ICT is blocking SMEs to integrate ICT into their business operations, this is supported by the finding that complexity was the most prevalent innovation characteristic among Malaysian females adopting and using ICT at their workplace (Azam and Quaddus, 2009). Perceived Complexity was found to be the most significantly related factor affecting e-service adoption in Saudi Arabia (Al-Ghaith, Sanzogni and Sandhu, 2010). Also Uzoka et al (2007) finds that complexity plays a major role in adoption of e-commerce among product/service organizations in both public and private sectors of Botswana. Azam and Quaddus (2009) found that perceived trialability and perceived observability were positive correlated with the adoption intention of e-commerce whereas perceived complexity have negative correlation with the adoption intention of e-commerce among Malaysian SMEs. Their findings on observability is supported by Askar, Usluel and Mumcu (2006) in their study of how Turkish secondary school teachers use ICT. Trialability of an ICT is also previous fond to influence the adoption decision in a developing country (Richardson, 2009). Al-Gahtani (2003) found that trialability is important for ICT adoption among Saudi-Arabian employees. Tarofder, Marthandan and Haque (2010) findings suggested that top management support and Trialability play crucial role for diffusing web technologies in supply chains among Malaysian SMEs. Trialability is also found to be vital for adoption of handheld reporting devices for Dutch workers in the installation sector (Verkerk, and der Pijl and van Asperen, 2009).

The 'innovation decision process' is categorized in the steps an individual takes from awareness of an innovation, through the formulation of an attitude to the innovation, on to the decision as to whether to implement, and finally confirmation of this approach. This innovation-decision process includes the two main stages: decision and implementation.
The decision stage is when the individual engages in activities that lead to a choice to adopt or reject the innovation. According to Rogers (1995) this decision is based upon the five above mentioned criteria. The decision leads to an action; implementation or rejection. Implementation occurs when an individual puts an innovation into use, while rejection is the abandoning of the innovation.

3 Methodology

A case study is the best approach for taking account of the multi-dimensionality of complex phenomena as innovation (DeBresson, 1996). This research is investigating the challenges to adoption of ICT in SMEs in Matara District, in the south of Sri Lanka. Different countries use different definitions for SMEs. The universally acceptable official definition for SMEs is not available in Sri Lanka as is the case in most developing countries (Dasanayaka, 2009). Thus, in this research, we have adopted the following definition for small scale and medium scale firms as given by the Department of Small Industries, Sri Lanka.

Table 5.1 Definitions of small and medium sized firms in Sri Lanka

<table>
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<tr>
<th>Institution</th>
<th>Criteria</th>
<th>Small Scale</th>
<th>Medium Scale</th>
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<tbody>
<tr>
<td>The Sri Lankan Department of Small Industries</td>
<td>i) Capital investment</td>
<td>Between 2 – 5 million SL. Rupees</td>
<td>Between 5 – 25 million SL. Rupees</td>
</tr>
<tr>
<td></td>
<td>ii) No. of Employees</td>
<td>Between 10 - 49 employees</td>
<td>Between 50 - 100 employees</td>
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Source: Dasanayake, 2009.

SMEs in the hotel industry located in Matara district in the southern part of Sri Lanka is considered as the informants in this research. The Matara district is selected due to the fact that it has the highest proportion of SMEs in Sri Lanka (Department of Census and Statistics 2003/2004). The study is conducted as a qualitative research. The study focuses on hotels, as the tourist industry is increasing rapidly and is competing
internationally. As hotels are a part of the tourist industry, hotels has to adapt to the demanding international costumer. This implies using ICT for building costumer relations and for ensuring an efficient and cost effective production. Our research sample consists of two medium scale hotels, one slightly older than the other. A purposive sampling technique was used to select the participants for the study. Kerlinger stated that purposive sampling “is characterized by the use of judgement and a deliberate effort to obtain representative samples by including presumable typical areas or groups in the sample” (Kerlinger, 1964, p. 129). With the purpose of the challenges faced by the SMEs adopting ICT in their business activities, in-depth interview were conducted with representatives from the hotel industry in the Matara district.

Semi-structured interviews were carried out to collect the data. This as semi-structured interview allows addressing research questions and obtains in depth information from the informants on the issues addressed (Yin, 2003). One researcher was handling the sessions while the other was recording the interview on tape. The entire interviews were recorded and converted into text and translated from Sinhala language to English.

The open ended questions asked refer to:

- The present situation, what ICT is they currently using for what purpose and what do they achieve by using it.
- If they could wish, what ICT would they want to use for what purpose
- Why do they not do as they wish, what is hindering them in doing so

Data analysis was done with the purpose of identifying the challenges faced by the SMEs hotels in adopting ICT. The interview data was analysed along the theoretical framework in order to reveal the main challenges the SMEs faced when considering adopting ICT. Yin (ibid) suggested that every investigation should have a general analytic strategy, guiding the decision regarding what will be analyzed and for what reason. Among the possible analytic techniques presented is pattern-matching. In general, the analysis will
rely on the theoretical framework that led to the case study. Trochim (1989) considered pattern-matching as one of the most desirable strategies for analysis. This technique compares an empirically based pattern with a predicted one. If the patterns match, the internal reliability of the study is enhanced. The judgment of the researcher is therefore required for interpretations.

4 The case

The Perl Clip Hotel is situated in the Southern part of the country, in the Matara District of Sri Lanka. The hotel is over 12 years old. It is a private firm registered under the Tourist Board in Sri Lanka. The reported capital investment of the hotel totals to about 12 million Sri Lankan rupees (110 000 USD). When the business started, it was just a hiring location for weddings. At that time there were no ICT in use in the business. Pearl Clip has gradually evolved, the next step was to supply meals for the weddings at the house for hire, then it also offered catering for other events, and after this it has step by step improved into a hotel with all usually hotel activities. As the business grew, more and more employees were hired into permanent positions. The staff then included chefs and waiters, and then it gradually improved and grew into a restaurant. According to the present manager of the hotel: “we did hard work to make this into a hotel and a restaurant and make this famous, not only among the local customers but also among its foreign customers”. Currently, there are more than 50 employees who are working at the hotel. They all strive to make the hotel to become a success and such secure their working place. The goal of the hotel is to be able to offer more than 8 rooms and 5 separate houses to foreigners or other high demanding local customers. The restaurant offers a variety of Sri Lankan traditional foods together with foreign foods. There are many competing suppliers of food around the Matara area which are also able to serve at any celebrations or ceremonies. Recently Pearl Clip have expanded the hotel premises by adding another restaurant and they also hope to build a swimming pool to satisfy the customers’ needs and wants. Their ultimate goal is to become a part of the rated star
hotel sector in Sri Lanka, and to be regarded as supplying the best service for the customers in the local and the international markets.

The Lalitha hotel is situated near Matara town, Sri Lanka. It is a star class hotel which was established in 2007. It is a private owned hotel registered under the tourist board in Sri Lanka. The mission of the hotel is to provide quality service to satisfy customers’ needs and wants. It consists of more than 20 separate rooms in flat house including, conference facilities, a swimming pool facility and a restaurant. Their target customers are the local customers and foreign customers as well. They provide Sri Lankan traditional foods together with more international foods. They have a small tour operating system for arranging travels allowing customers to visit sites of interest in the local area. The manager of the Lalitha hotel said “From the beginning, we had a computer system with software which was used to do our day to day activities, the system are developed by our trained staff members”. Currently, they have more than 50 permanent staff members and several temporary staff members. According to the manager; more than 7000 local and foreign customers visit their hotel annually. They claim to have a very effective business network which supplies goods, materials and services; services such as local guides or local transport. They try to become the best hotel in Matara by providing quality services. Their investment are valued to more than fifteen million Sri Lankan rupees (140 000 USD).

5 Findings
The interviews revealed that the two hotels relate to ICT in a similar manner. The both of them only use Microsoft Office and internet facilities together with payment systems. Demanding costumers forces the hotel to adopt certain ICT systems. The hotels use payment systems as international costumers expect to be able to pay that way. Internet is used for advertisements on the web to attract new customers and for chatting or contacting previous costumers. The hotels use many of the applications found in MS office. They use Word for writing letters, Excel for keeping financial records and
providing periodical statements, Access for building databases on their relations to costumers and vendors and they use free e-mail access offered by Microsoft or other e-mail providers. The Pearl Clip manager stated: “Normally we don’t use computerized system for the hotel activities. There is no special package or soft ware. But we mainly use Internet, Email, Web facilities (we provide these facilities for needs of customer such as foreign or local, getting information, communication needs, their entertainment or any other needs), Finger print (mainly used for checking the employee’s attendance), Credit card (for most of card holders are customers, suppliers needs), Telephone (internal or outside customer, supplier communications), Microsoft Office (for many day to day hotel activities such as letter writing, bill issuing, and storing data).”

The interviewed managers perceive ICT to be advantageous for their hotel. The advantages they see is that it saves time, is more reliant and more cost efficient than doing the same tasks manual. According to the Pearl Clip manager: “Really, ICT makes our job easier and it enable to us complete tasks quickly and reliably, .... our productivity is increased and the number of customers gradually increased.” Even so, both hotels reports that they do keep manual records on the side, in case their computer system breaks down. “We have not faced much trouble due to our computer system because normally we carry out both manual and digital methods, so that the effects or damage to our daily activities are reduced if our ICT systems are down” (Pearl Clip manager). The managers intentionally keep the complexity of the systems low, the Lalitha hotel has a “very simple computer system” and the Pearl Clip hotel has “no advanced ICT systems”. The purpose is to keep the purchasing and operating costs as low as possible as they has to “develop little by little by the income generated by the business” (Lalitha manager).

Another barrier mentioned is that “the senior management lack knowledge of ICT, they are used to manual routines” (Lalitha manager). A simple system is then easier to introduce at the hotel. Both the managers report that the used ICT systems are highly
compatible with the organizational structure of the hotel and the competence base of the employees. The hotels recruit young staff, as these usually have some computer training. The staff gets their computer training at universities or in private computer schools, none of the two hotels offered in-house ICT training for their staff. As mentioned by the Pearl Clip manager: “Since we don’t use special software we do not need to train our employees in the use of ICT”. The only ICT training reported in-house was related to handling of the payment systems.

Both the managers reported that they have personal knowledge on how to use computers and software, as both of them have worked for international hotels operating in Sri Lanka. This implies that the perceived complexity of the adopted ICT systems is low. The managers were themselves used to computers at their previous workplaces. According to the Lalitha Hotel manager: “I have used Hotel Management Systems when I worked at other national and international hotels, then I got more experience with using such systems and I realized the advantages of such systems”. Likewise, the staff has adequate computer training. The ICT systems they presently uses is common in use also at other workplaces and does not represent much tasks not performed also at other workplaces. The managers and the employees had cooperated in adjusting the system to the routines at the hotel. If anything breaks down, the employees try to mend it. In the case they do not manage to mend it, the manager has to order service personnel from the city.

As the complexity of the systems is low, the managers did not feel an urge for to try the present ICT systems before adopting them. Both managers have for some time considered upgrading their ICT system from Microsoft Office to some Hotel Management System. They both reported that if they were to purchase such a complex system, they were in the need for a test period, as commented by the Pearl Clip manager: “I have experience with a Hotel Management System and know how to use it and are aware of its advantages. When we are to adopt such system, I think it’s
necessary that we try the software first”. The purpose of the test period would then be to reveal if the employees was able to cope with its complexity and to see if the promised advantages could be realized. They both hesitated to adopt such a system as they feared that the cost would be larger than the benefit from using it; “I have an idea about a Hotel Management system, I did some feasible studies and called quotations from more software companies. We hope to adopt such a system in the near future, but, yet we are not able to purchase such a system, because, firstly we have to consider the change in income and expenditure” (Lalitha Hotel manager).

The observability of the benefits is high. The manager and the staff see that the ICT used actually helps by reducing the time needed for fulfilling the tasks. The ICT usage also makes it possible to serve the costumer in a more timely and efficient way. The Pearl Clip manager commented: “There are many advantages of using ICT, when we consider email we have good responses from international and local customers. On the other hand, suppliers can directly communicate with us, but few of our suppliers actually use e-mail”. The time delay makes it difficult to discuss with European customers through phone; both the customers and the staff prefer to communicate by e-mail as this reduces the misunderstandings and the errors. Many of the domestic suppliers do not use e-mail, hence much of these approach the hotel by phone (Lalitha manager).

6 Conclusions

The conclusion of this research is that SMEs in the hotel industry in the southern part of Sri Lanka does not use ICT extensively. They find ICT advantageous, but not advantageous enough for to adopt it as extensively as SMEs in the hotel industry in the more developed parts of the world does. The ICT the SMEs in the southern part of Sri Lanka use is simple and cheap, and the SMEs are to some extent driven to adoption by a demand from their customers, then mostly from their international customers. Their local subcontractors and their local business contacts are in the same situation, thus
they do not demand their local business partner SME to take further use of ICT. There might be a lack of role models when it comes to use of ICT.

Work experience in international hotels provides the hotel managers with acquaintance of ICT systems more specialised for a hotel organization than Microsoft Office offers. Recruiting young people with computer knowledge spurs more use of ICT. Young computer skilled employees are invited to participate in adjusting the ICT to the routines of the hotel. As the employees gets their computer training from universities and private computer classes, government are able to increase the usage of ICT in the SME sector by improving and expanding the availability of computer skilled graduates. Local universities have to respond to this demand for computer skills among its graduates in order to provide the local SMEs such competences.

The main concern for the hotel managers were the profitability of a new ICT. As the managers of SMEs are concerned about the relative advantage of a new ICT device or service, any salesperson would need to address this issue. The hotels have to earn the money before they could spend it, indicating that organizations wanting these hotels to acquire expensive ICT systems probably need to arrange finances as well. A salesperson or any other promoter of ICT then has to relate to the situation and the needs at the hotel, expressing the relative advantages and the possibilities the new ICT offers. When promoting more unfamiliar ICT systems, the promoter need to take more into considerations how the ICT is compatible with the existing organization, maybe allowing a trial period for to make the results and the compatibility of the new ICT visible for the users.

As the data is limited to only two hotels in the southern part of Sri Lanka, the conclusions are not far reaching. Thus, the findings are strengthened by using Rogers (1995) model of adoption of innovations, as this theory is rigorously tested over the
years in many other contexts regarding other innovations than ICT. The findings imply that Rogers (1995) model of diffusion of innovations has applicability also in Sri Lanka regarding the adoption and use of ICT. As the interviews revealed that the hotel managers stressed different aspects of Rogers (1995) model according to how familiar they were to the particular ICT, the study have some theoretical implications as well. When the innovation was perceived as familiar, the relative advantage became more important. While when the ICT was more unfamiliar, the other four elements (compatibility, complexity, trialiability and observability) became more important. This indicate that the adopter perceive there to be different types of risks associated with adopting a familiar and an unfamiliar innovation.

Future research may include how familiar the respondent is to the innovation in question when applying Rogers (1995) model of adoption of innovations. Such research may also include other industries than tourist related ones. This allows investigations on how adoptions of ICT innovations are influenced by networks or by other ICT promoters.

References


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