Knowledge and Perceptions of Actuarial Science Among Students and Academics: Evidence from JABU

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Abstract:

The study discusses the link between actuarial science and insurance, and how the growing importance of investment in the latter operation has increased the role of actuaries in financial world. Attempts were made to find out reasons why few students go for actuarial science. Knowledge and perceptions of people about actuarial science (KPPAAS) in Joseph Ayo Babalola University (JABU), one of the institutions offering Actuarial Science in Nigeria were investigated. Statistical tools such as Yates' Correction for Continuity, Phi and Lambda were used to analyze the data generated from 220 participants (194 students and 26 academics) randomly selected from four colleges of the university. The result of the study shows that more than 96 percent of respondents in the survey mistakes actuarial science for insurance or do not have an idea of what actuarial science is. The study also argues that since insurance industry cannot survive without active roles of trained actuaries and that no economy in the world can survive without active role of insurance, it becomes necessary to create awareness programmes for the actuarial profession, in order to train and bring up more actuaries for the growth of the insurance industry in Nigeria.

Keywords: **mathematics, actuaries, insurance and actuarial prospects.**

1.INTRODUCTION

Most students who go to universities where actuarial science is offered are led to believe that actuarial science is another name for insurance. Unfortunately, many Nigerians have negative impression about insurance – perceived as a "legalized fraud business" organized to dupe unsuspecting members of the public. This group of persons had not been cleansed of this negativity over time.

The manner in which many insurance companies operated before the industry was consolidated in 2007, seems to explain why students do not like to study insurance or actuarial science. Rather, they prefer to study popular courses which they believe will easily lead to employment opportunities after graduation. Since actuarial science is not well known even among the policy makers in Nigeria, works which are jurisdiction of actuaries are given to accountants, economists and business graduates to do. Coupled with this low level of awareness, it is not common to see on the pages of newspapers where employers of labour in Nigeria deem it fit to invite actuarial graduates to apply for the positions they are suitably qualified for.

However, following the introduction of Defined Contribution (DC) into pension system in 2004, many studies have emphasized the need to train and bring up more actuaries for the growth of the economy through the insurance and pension industries. In response to this need, sometimes ago, a group of professionals such as accountants, economists, statisticians etc who perhaps had never taken any actuarial course at all, organized themselves into actuarial professional bodies to be providing actuarial training to those who want to be professionally qualified. Fortunately, the attempt was intersected by concerned actuaries by stopping the Bill sponsored by these fellows in the National Assembly. This incident indicates the lack of clarity on the role of other professions vis-à-vis that of the actuarial profession.

For awareness purposes, this study reveals the career prospects in actuarial science and suggests how the development of the course in Nigeria would not follow the negative path through which insurance companies have been perceived. In fact, many Nigerians have different views of insurance. Adeyele (2011) revealed that the insurance industry which is supposed to take a lead in the finance sector towards economic sustainability in the country has not been able to win public acceptance. Osipitan (2009) also confirmed this that insurance system as it is today means different things to different people in Nigeria. Osipitan cited in Adeyele (2011) revealed that Nigerians neither trust nor know anything about insurance systems due to sharp practices perpetrated by some who were known to have failed

in other profession but later joined the industry in the past. This may not be unconnected with the lack of regulatory framework to monitor the market participants which led to laissez faire between 1922 and 1960. The pre-1961 situation definitely gave rise to the feeling among Nigerians that insurance was less complex and less demanding and could be more easily run than banking.

As retirement system moves from the accumulation phase to the payout phase, the number of actuaries in the country may not be adequate to handle the retirement challenge. This will in turn lead to temptation of using non-actuaries who may not understand the technicality involved to face these challenges. The decreasing number of students turning up for actuarial courses annually in institutions where the Courses are offered calls for concerns. In this study, we will reveal areas of career opportunities open to graduates of actuarial science. The paper will be of great value to the general public, especially, those who need to manage financial risk in their businesses.

2. STATEMENT OF THE PROBLEM

Actuarial Science as a field of study had been offered for more than thirty years in Ahmadu Bello University and University of Lagos. Until 2005, these two institutions had been the only universities in Nigeria providing career training in actuarial science at undergraduate level. In spite of this long existence, it appears that most graduates and the current students from these universities as well as the newly established universities – Joseph Ayo Babalola University, Redeemer's University, Salem University and Ibrahim Badamosi Babangida University, presently offering the course do not know what actuarial science is all about.

Whereas there are some elites who claimed to have knowledge of actuarial science yet they have continued to misinform the general public that 'actuarial science' is another name for insurance. It will not be surprising therefore to hear staff members of such universities saying that actuarial science is insurance. The vague knowledge of what actuarial science is all about among the elites reached its peak when the course was presented for accreditation by two universities in 2009. They presented *B.Sc. Actuarial Science* for the accreditation exercise. Surprisingly, when the National University Commission's report came out, instead of it stating *B.Sc. Actuarial Science* "denied" or "accredited," the report simply read "Insurance accredited" in one of these universities, and "Insurance denied" in the other. In fact, in the university where insurance was accredited by the NUC, the insurance had just been introduced into the department and was not presented for accreditation.

Also, it must be mentioned that there are some of those who studied insurance as a course who do not know what actuarial science is all about. It has been identified that some holders of B.Sc. Insurance who had worked in the insurance industry but presently teaching insurance in universities also sometimes mislead the university community that the graduates of actuarial science work for the insurance graduates. They believe that a graduates of actuarial science cannot work in other establishment because of their vague idea about the career opportunities in actuarial profession. This sometimes generate serious tension between the people in the two fields of study. The insurance advocates always claim that actuarial science covers only a small part of insurance (life aspect) but actuarial advocates are not too pleased with this assertion.

Because of lack of knowledge about career opportunities in actuarial science, the few people who are aware of this profession tend to avoid studying the course. Although there are few honourable exemptions of students who are aware of the course but avoid studying it due to their perceived mathematical contents of the course. Nevertheless, this study attempts to examine the level of awareness about actuarial science among students and lecturers in Joseph Ayo Babalola University (JABU) – with a view of promoting the career prospects of actuarial profession in Nigeria economy.

3. OBJECTIVES OF THE STUDY

The main objective of this study is to examine factors affecting students' enrolment for actuarial science as a field of study. This broad objective is broken down into the following specific objectives:

i. To determine whether there is relationship between academics and students' knowledge of actuarial science.
ii. To examine whether factors affecting students' enrolment in actuarial science vary by gender.

4. LITERATURE REVIEW

Historical development of actuarial science. The origin of modern insurance can be traced back to Great Britain. The insurance industry in this part of the world had once operated without the help of actuaries, but could not stand the test of time as the policyholders could no longer rely on insurance companies for the promised financial protection. For example, in 1740 not less than 47 insurance companies were registered in Great Britain but all went out of operation before 1748 because there were no actuaries then to manage the financial risks

confronting the companies (Hickman, 2004). This incident led to development of mathematical methods to solve financial problems in insurance.

The 17th century was a period of extraordinary advances in mathematics in Germany, France and Britain. At the same time there was a rapidly growing desire and need to place the valuation of personal risk on a scientific basis. Independently from each other, compound interest was studied and probability theory emerged as a well understood mathematical discipline. Previously an important advancement came in 1662 from a London draper named John Grauntt, who demonstrated that there were predictable patterns of longevity and death in a defined group or cohort, of people, despite the uncertainty about the future longevity or mortality of any one individual person. This study became the basis for origin of life table (see http:en.wikipedia.org/wiki/Actuarial_science) . It was therefore made possible to set an insurance scheme to provide life insurance or pension for a group of people, and to calculate with some degree of accuracy, how much each pension in the group should contribute to a common fund assumed to earn a fixed rate of interest. The first person to publicly demonstrate how this could be done was Edmund Halley (Hickman, 2004). He wrote an article entitled: '***that the price of insurance on Lives might be regulated by age of the person whose life insurance is made***'. James Dodson followed this idea and on being refused assurance by Amicable on account of his age 'determined to form a new society on a plan of assurance on a more equitable terms than those of the Amicable, which took the same premium for all ages' (Chartered Insurance Institute, 1999).

As a result, Equitable Society was formed in 1762 and transacted business on the basis suggested by Dodson (Chartered Insurance Institute, 1999). They were able to offer life assurance on level premiums, which were dependent upon the age of the person when he took out the policy. This was significantly different from the previous insurance companies. Also, the Equitable Society offered a whole life policy that paid the sum assured on death of the assured person. This was possible as the work of Dodson and others had introduced an element of science into the business of knowing how much to charge. This science is now known as actuarial science. Other insurance companies which did not originally use such mathematical scientific methods suggested by Dodson most often failed or were compelled to adopt the methods pioneered by Equitable (Buhlmann, 1997; Chartered Insurance Institute, 1999).

The term actuary which was derived from latin 'actuarius' denoting the clerk who recorded the proceedings of the senate, court or similar body, was first used by the society for Equitable Life Assurance in 1762 for its chief officer. Previously, the use of the term had

been restricted to the official who recorded the decisions, or 'act', of ecclesiastical courts (Fellow Institute of Actuaries, 2004). However, the term is now used to describe someone who studies actuarial science, which has grown to a world class profession that serves public purpose. The formation of Society for Equitable Assurance on Lives and survivorships in 1762 as mutual company, initiated a process that created a public purpose for actuaries (Hickman, 2004).

Changing Role in Actuarial Science. In the earlier days, actuarial skills were only applied to the insurance industry. Most of those who thought of themselves as actuaries then were employees of life insurance companies and hence a part of the industry. The few consulting actuaries providing actuarial services to smaller companies closely associated with the industry. "This close connection between the actuarial profession and insurance industry is largely a thing of the past" (Trowbridge, 1989:4).

Today, the systematic body of knowledge which actuarial science is founded has changed the scope of the financial security systems that actuaries design and manage. The uniqueness of actuarial science lies in the actuary's understanding of investment policies of premiums, and the inner working of the many different types in particular. The mathematicians and economists can, of course, postulate all sorts of models and approaches here, but it is the actuary who will need to choose the specific methods and data to use, so to be able to stand by the results and accepts the real-life consequences of being wrong. So actuaries are very much of persons of judgment rather than one who simply applies techniques.

The growing importance of investment performance in insurance operations, the volatility in financial markets and emergence of investment-link insurance contracts are creating the need for actuaries to develop skills to address variable cash-flow for life insurance for greater performance of investment. For a general and systematic method to address the variable cash-flow requirements for life insurance, the actuarial techniques have moved to the concept of asset shares which involve a projection of cash-flows based on particular policy characteristics and experience assumptions (including gross premiums, investment returns, expenses, costs of insurance, lapses, policyholder dividends, taxes, etc) that the actuary feels are relevant for the purpose of the calculation (Yam, 2011).

Aspects of insurance where actuarial science has been applied are the asset share calculations for calculating premium rates, setting surrender cash values, establishing dividend scales, assessing profit signatures, testing solvency, making projections for policyholder illustrations and determining embedded values. Apart from mathematics,

probability and statistics, the actuarial profession has to cater for other social aspects including finance, economics, social expectations, legislation, prudential regulations, practices of other related professional bodies, technology advancement, etc. Hence actuarial science is better described as a business profession rather than mathematical techniques, and it is informative to reveal that this discipline is needed in all areas of business because of financial risks that need to be professionally dealt with. For example, business today is, more than ever before, fraught with uncertainty and pressure. The need for a business to perform competitively, and yet respect the interests of its customers and the economy setting it operates in, spelling some special problems (Adeyele, 2011). The changing role in actuarial science is a way of tackling the operational issues to which financial business is exposed, particularly where there are significant financial uncertainties in running the business (Adeyele and Maiturare, 2012).

Actuarial science is needed to deal with uncertainty of how much will be paid (amount) and when (timing). The amount and timing variables can be modeled mathematically to produce a workable model of the monetary liability today. The statistical distributions and methods will vary widely and depend on the nature of the liability-modeling car accidents, latest industrial diseases claims, etc. One of the main functions of actuaries is to help businesses assess the risk of certain events occurring and to formulate policies that minimize the cost of that risk (Sloan Career Cornerstone Center). For this reason, actuaries are essential to finance industries particularly, the insurance industry.

Actuarial Skills and where Actuaries can work.

Having examined the irreplaceable role of actuaries in economic development of a nation, Trowbridge (1989) concluded that it seems logical to describe them as that of the designers, the adaptors, the problem solvers, the risk estimators, the innovators, and the technicians of continually changing field of financial security systems. Actuaries do not, however, undermine the important roles played by other professions in the financial security systems. Among these are economists, statisticians, accountants, demographers, lawyers, administrators, politicians, the regulators, and the marketers – to name only a few. Trowbridge (1989), however, observed that actuarial science must be meshed with capabilities of others if financial security systems are to be successful in minimizing the financial consequences.

Actuaries assemble and analyze data to estimate the probability and likely cost of the occurrence of an event such as death, sickness, injury, disability, or loss of property. Actuaries also address financial questions, including those involving the level of pension

contributions required to produce a certain retirement income and the way in which a company should invest resources to maximize its return on investments in light of potential risk. Using their broad knowledge of statistics, finance, and business, actuaries help design insurance policies, pension plans, and other financial strategies in a manner which will help ensure that the plans are maintained on a sound financial basis.

Recent areas of applying actuarial science are in the assessment of capital projects and in helping a broad range of large financial organizations to better understand their liabilities and cater for them. Historically, actuarial science used deterministic models in the construction of tables and premiums. The science has gone through revolutionary changes during the last 42 years due to proliferation of high-speed computers and synergy of stochastic actuarial models with modern theory.

The actuary, being someone who has a thorough grounding in economics, statistics and financial mathematics as earlier mentioned, must use these skills to solve business problems. In practice, mathematics and statistics just form a base from which an actuary will work. Other skills will be as important. Actuaries in their day-to-day work use knowledge of relevant legislation, business practice, marketing and accounting to meet the need of organization they work for.

Since actuarial science developed from the concept that the experience of the past could be utilized to measure the changes of the future, most actuaries engage themselves in the field of insurance and have evolved into the scientists within the structure of insurance industry. The actuary thus plays a major role in the development of insurance coverage and establishment of investment policy. That is why some people believe that actuarial profession is limited to insurance industry.

The insurance industry has played an irreplaceable role in economic development of nations and there has not been any economy in the world ever reported to have survived without active role of insurance (Adeyele, 2011). However, the insurance industry will not perform credibly and effectively without the employment of trained actuaries to manage business risks. Efficiency ensures that things are done right but effectiveness is more important. It ensures that the right things are done at the right time. Consequently, any insurance company that aspires to achieve its economic goals but ignores the role of the actuary will most often fail the public purpose it serves. Most of the students might not be aware of this field called actuarial science but the fact is that this field is one of the best fields any commerce student can opt for.

Most actuaries are employed in the insurance industry, specializing in life and health insurance or property and casualty insurance. They produce probability tables which determine the likelihood that a potential future event will generate a claim. From these tables, they estimate the amount a company can expect to pay in claims. For example, property and casualty actuaries calculate the expected amount payable in claims resulting from automobile accidents, an amount that varies with the insured person's age, sex, driving history, type of car, and other factors. Actuaries ensure that the price, or premium, charged for such insurance will enable the company to cover claims and other expenses. The premium must be profitable, yet competitive with other insurance companies. Within the life and health insurance fields, actuaries are helping to develop long-term-care insurance and annuity policies, for many individuals. Actuaries in other financial services industries manage credit and price corporate security offerings. They also devise new investment tools to help their firms compete with other financial services companies. Other organisations actuaries work for include but not limited to the following: banks, hospitals (particularly health sector), oil companies to manage risk, universities and all areas of business that want to make financial sense of the future.

Actuaries need a strong background in mathematics. Courses in economics, accounting, finance, and insurance also are useful. Companies increasingly prefer well-rounded individuals who, in addition to having acquired a strong technical background, have some training in liberal arts and business and possess strong communication skills. In addition to knowledge of mathematics, computer skills are becoming increasingly important. Actuaries should be able to develop and use spreadsheets and databases, as well as standard statistical analysis software. Knowledge of computer programming languages, such as Visual Basic, also is useful.

Actuaries may play a role in determining company policy and may need to explain complex technical matters to company executives, government officials, shareholders, policyholders, or the public in general. They may testify before public agencies on proposed legislation affecting their businesses or explain changes in contract provisions to customers. They also help companies develop plans to enter new lines of business or new geographic markets by forecasting demand in competitive settings.

5. DATA AND METHOD

Population and sampling: The population comprised students and academic staff of JABU. The questionnaire was designed around KPPAAS model for 220 participants (194 students

and 26 academics) selected from the four colleges of the university. The entire questionnaire distributed were completed and returned.

Instrumentation: A questionnaire backup with interviews was used to obtain level of knowledge in actuarial science and insurance. This was divided into two sections. Section A provided socio-demographic data of the respondents, while section B is concerned with knowledge, perceptions and views of people about actuarial science and insurance. Socio-demographic questions sought for respondents' information regarding their age, gender, and departments. The mean and standard ages of the population are 21.75 and 10.00 respectively. Samples from each college are as follows. College of Social and Management Science, 68.18%; Humanities, 4.55%; Agricultural Science, 11.36% and Natural Sciences, 15.91. Actuarial Science and Insurance students were excluded from the exercise because it is assumed that they would have been guided by their Department's staff members.

In the course of data collection (after questionnaires have been retrieved from the respondents), the participants were enlightened about career prospects in actuarial science, and the participants were asked whether they will be willing to change from their current course to actuarial science if given the opportunity to do so. They all said no for different reasons. As a result, another set of questionnaires was distributed to gather factors that influence their decision (see Table A).

Statement of Hypothesis: In line with the objective of the study, the following hypotheses were formulated in null form and were tested at 0.05 level of significance:

H_{01}:There is no relationship between the academics and students' knowledge of actuarial science.

H_{02}: Factors affecting students' enrolment in actuarial science do not vary by gender.

Analytical procedure: Chi square was used to test $H_{:01}$, and is given by

$$\chi^2 = \sum (f_0 - f_e)^2 / f_e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad 5.1$$

In order to reduce the error of prediction, a Yates' correction for continuity was applied as follows:

$$\chi_c^2 = \sum (|f_o - f_e| - 0.5)^2 / f_e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad 5.2$$

Where χ_c^2 = corrected chi square

$|f_o - f_e|$ = the absolute values of difference.

To measure the strength of association between gender and factors affecting students' choice of actuarial science, chi square-based measures of association, Phi (φ), and Proportional Reduction in Error (PRE), lambda (λ), were used to analyze $H_{0:2}$.

The following parameters were set to serve as guide to the use of φ and λ:

0.01 – 0.30 = low lever relationship

0.31 – 0.60 = moderate relationship

0.61 – 0.99 = strong relationship

The value 0 indicates no relationship while 1 represents perfect relationship.

The model for these parameters are as follows:

$$\varphi = \sqrt{\chi^2 / N} \qquad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \; 5.3$$

Where $\chi^2 = \sum (f_o - f_e) / f_e$

N = total number of cases

$f_o = observed$ and f_e = expected, $row = $ (marginal $\times$ $column$ marginal)/N

For the lambda, this formula is given as follows

$$\lambda = (E_1 - E_2) / E_1 \; \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \; 5.4$$

Assumptions guiding the use of λ as suggested by Healay (2009) were made to determine E_1 and E_2.

6. Results

Table A: Knowledge of Actuarial Science by Students and Academics

	Awareness Level		
Respondents Grouping	Yes (Before coming to JABU)	No (Before coming to JABU)	Totals
Students	105 (54.13%)	89(45.87%)	**194 (88.18%)**
Academics	14 (53.85%)	12 (46.15%)	**26 (11.81%)**
Totals	**119 (54.09%)**	**101(45.91%)**	**220 (100%)**

Actuarial Science mistakes for Insurance

f_o	f_e	$f_o - f_e$	$(f_o - f_e)^2$	$(f_o - f_e)^2/f_e$
105	104.94	0.06	0.06	0.000034
89	89.06	-0.06	0.0036	0.0004
14	14.06	-0.06	0.0036	0.000256
12	11.94	0.06	0.0036	0.000302
220	220	0	X^2(obtained) = 0.000632, Yates = 0.034003	

With df = 1, 0.05 level of significant, critical region = 3.841.

It is expected that the academics as the role model in academic communities will be more informed about what actuarial science is than the students. Contrary to this, Table A shows that both the academics' and students' knowledge of actuarial science is not significant. That is, the H_{01} is upheld since the calculated chi square (0.000632) as well as Yates' correction (0.034004) as determined below, is less than the critical region (3.841).

$$\chi_c^2 = \frac{(0.06 - 0.5)^2}{104.94} + \frac{(0.06 - 0.5)^2}{89.06} + \frac{(0.06 - 0.5)^2}{14.06} + \frac{(0.06 - 0.5)^2}{11.94} = 0.03403$$

Also, in this table, 54.09 of both the students and the academics claimed that they have knowledge of actuarial science before coming to JABU, while 45.91% of them (the students and the academics) said they have no knowledge of actuarial science before coming to JABU). When those who claimed they had knowledge of actuarial science outside JABU and

those within JABU are asked to report their knowledge, they all mistake actuarial science for insurance (Table is omitted).

Table B:Reasons Most Students do not Study Actuarial Science by Gender

	Gender		
Factors	Male	Female	
Parents	96 (82.78%)	33(42.31%)	**129 (66.57%)**
Mathematics	20 (17.24%)	45 (57.69%)	**65 (33.51%)**
Totals	**116 (100%)**	**78(100%)**	**194 (100%)**

Factors affecting students' enrolment in actuarial science

f_o	f_e	$f_o - f_e$	$(f_o - f_e)^2$	$(f_o - f_e)^2/f_e$
96	77.13	18.87	356.08	4.6166
33	51.87	-18.87	356.08	6.8649
20	38.87	-18.87	356.08	9.1608
45	26.13	18.87	356.08	13.6271
220	220	0	X^2(obtained) = 34.2694	

df = 1, 0.05 level of significant, critical region = 3.841.

In Table B, 66.41% of students reported that they are not interested in actuarial profession because their parents did not send them to study Actuarial Science in JABU. Whereas, 33.52% of them who would have indicated their interest for actuarial science are been scared away by mathematical contents of the course. These two factors were first tested with chi square. The critical region, calculated statistics, level of significant and degree of freedom are reported in the Table B. In this table, the calculated chi square score of 34.2694 is within the "reject H_0" region, which suggests that there seems to be relationship between gender and factors affecting students' enrolment in the actuarial profession.

However, further analysis was carried out to ascertain this result. For this purpose, 194 students in Table B were categorized by gender and factors. To measure the strength of association, a PRE measure called lambda (λ) was used. With this λ, it can be predicted, either that students do not study actuarial science because of parental influence or because of mathematical contents in actuarial science. For this first prediction, 65 errors were made. That is, for this prediction, all 194 students would be placed in first row. Since only 129 of the students actually belong in this row, this prediction would result in 65 errors (194 – 129). If mathematics had been predicted as reason most students don't do actuarial science, on the other hand, 129 errors (194 – 65) would have been made. The lesser of these two was taken and refer to this quantity as E_1, for the number of errors made while ignoring the independent variable. So $E_1 = 65$.

In the second step, we predict score on Y (factors affecting students enrolment) again, but this time X (gender) will be taken into account in making the predictions. For the males column, we predict that all 116 students don't study actuarial science because of

mathematics, and 33 errors will be made. By moving from column to column, X has been taken into account and a total of 53 errors of prediction will be made, a quantity denoted E_2 (E_2 = 20+33=53). If the variables are associated, we will make fewer errors under the second procedure than the first. In this case, we made fewer errors of prediction while taking gender into account (E_2 = 53) than while ignoring gender (E_1 = 65), so gender and factors affecting students' choice of actuarial science are clearly associated. The errors of prediction were reduced from 65 to 53. To find the proportional reduction in error, model 5.4 was used as follows: $\lambda = (E_1 - E_2)/E_1 = (65-53)/65 = 0.1846$. This result suggests that the association between the factors and gender is weak. In other words, we conclude that knowledge of gender improves our understanding to predict factors affecting students choice of actuarial science by 18.46 percent.

When Phi (φ) is used, we obtain the follow result:

$\varphi = \sqrt{\chi^2 / N} = 34.2694/194 = 0.42029$, which suggests that there is moderate relationship.

Because most people, based on Table B, mistakes actuarial science for insurance, it becomes necessary to assess long held beliefs about insurance, and to determine whether the business is now attractive to Nigerians since the industry had been reformed. This exercise is reported in Table C. Good, fair and poor are the options made available to the respondents to rate the insurance companies. Among the students sampled, 39.18% rated insurance companies as good, 35.05% rated it fair whilst 21.65% still have their reservation about insurance companies in Nigeria and said they could not rate insurance for now due to inadequate information to do so (Table C).

Table C: Insurance Companies' Rating by Students and Academics

	Views and Perceptions				
	Good	Fair	Bad	NEIF*	Total
Students	76(39.18%)	68(35.05)	8(4.12%)	42(21.65%)	194(88.18%)
Academics		14(53.85%)	4(15.38%)	50(22.73%)	26(11.81%)
Total	76(34.55)	82(37.27%)	12(5.45%)	50(22.73%)	220(100%)

Source: Field Survey, 2012. * No enough information for assessment

7. Conclusion

This study was carried out with the aim of assessing awareness level about the actuarial profession between the students and the academics. The motive for selecting the academics and the students for this study is to ensure that the right knowledge about the actuarial profession is passed to the general public when the need arises. In the course of this study's investigation, it was revealed that both the academics and the students mistake actuarial

science for insurance. The academics as intermediaries between the parents and the prospective students (seeking admission into institutions where Actuarial Science is offered), must be properly informed so that right knowledge is passed. Consequently, efforts should be intensified by the institutions offering the actuarial science to explore every legal means to promote the prospects of the profession to the general public. While it is vital to orientate or re-orientate the students and academics within the universities communities, the stakeholders in the country especially the policymakers have much responsibility to champion this course. This can be achieved by inviting individuals to career talk in actuarial science and insurance and educating them about the difference and relationship between the two disciplines. By so doing, the stakeholders who find reasons to hire more actuaries to perform variety of functions in their respective organizations will likely do so through national dailies where the general public can get to know about actuarial science. Since insurance industry cannot survive without trained actuaries and no economy in the world can survive without active role of insurance, it has become necessary to train and bring up more actuaries for the growth of the Nigerian economy.

However, the above will not be achieved without public awareness about the actuarial profession. It is suggested that in the course of educating the populace, parents should be target audience since they play significant role in students choice of disciplines. Adeyele and Yusuff (2012) have documented that parents and university authorities play significant role in students choice of disciplines. Another the way to intensify awareness campaign about actuarial science is to include it in senior secondary school curriculum and make it compulsory for all students. Through this medium, many people will be informed about the profession.

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