E-Insurance: An Empirical Study of Perceived Benefits

Dr. Fredrick S. Odoyo
Lecturer
Department of Business &Management
Kampala International University
P.O Box 9790, Dar es Salaam.

Dr. Richard Nyangosi
Sr. Lecturer
School of Postgraduate Studies and Research
Kampala International University,
P.O Box 9790, Dar es Salaam.

ABSTRACT

The recent evolution of Information technology in the financial services industry is changing the pace of providing insurance services, not only in India but in the world over. This paper is an attempt to analyze the perceived value attribution of ICT systems implementation in Indian insurance companies. It is a result of a survey conducted in the first and the second quarter of 2008. The sample size of 300 respondents was obtained by distributing well-structured questionnaires to employees and agents of both private and public General insurance firms operating in India. The scope of the survey was limited only to selected north Indian cities. The results indicate that ICT integration is perceived to enhance transparency, high productivity, and brand and image promotion and also increase in sales volume. However, it was noted that private firms indicated to have more value attribution to ICT systems implementation in comparison to public insurance firms in India

Key words: ICT, Technology, Insurance firms, Value attribution.

1. Introduction

Information technology integration within and across the nations, deregulations, advances in telecommunication, and the growth of internet and wireless communication technologies are drastically changing the structure and nature of financial services and insurance sector is no exception. The technological advances place in the hands of insurance companies and agents, the tools to bring new savings and better services to the consumers. Digitization has made it possible to process and communicate information faster, cheaper and more easily and reliably than ever before. Businesses are using information technology to improve quality, to lower cost and to design new products and services (Stewart et.al., 1998). The invention of the internet and related electronic devices has resulted to simplicity and convenience in providing financial services to the customers at reduced cost. The conventional human to human (H2H) interface is gradually being eliminated and replace by human to machine (H2M) interface to the convenience of the customer leading to time saving.

E-commerce can be defined as the involvement of electronic and computation devices in providing business services for time saving and cost lowering purposes. It is anew concept in business paradigm which is still at its development stage (Bromideh, 2006) However, over the years, the insurance business has lowered expenses by embracing new technologies in communication and automation. In recent years information technology has lowered the capital costs of insurance through the unbundling of insurance products and through the risk management movement (Stewart et.al. 1998).

According to Kleffner, (2002), technology has the potential to reduce costs by improving access to information for customers, brokers, underwriters and regulators. If systems can reduce duplication, power work, time delays etc, then costs can be reduced and in a competitive market place cost reductions will be passed to policy holders. Kleffner further argues that E-commerce can help cut costs by bringing efficiency improvements in distribution, administration and claim settlement. Arora, 2003 indicated that the new technology has strongly affected the customer by improving access to the web, which gives the consumer much more information and to harness this information for the benefit of the consumer. Further, Arora opined that e-commerce and internet are increasingly becoming one of the most important drivers of strategic change for business and national governance.

Yet the insurance industry appears to be lagging in the rapid evolution of financial services and e-commerce while banks, securities brokers and investment companies have an established online presence. The insurance faces strategic challenges in utilizing the web. More and more insurers offer online quotes and application with certain segments such as auto and home insurance leading the pack. However, insurers are still hesitant to approve policies online and ar adding those services slowly to other sites. The trend towards purchasing policies online will be slower for some types of insurance than other. It is anticipated that online distribution of personal insurance coverage will continue to expand rapidly. However, most companies believe that it will be more difficult to sell products such as term life and home insurance on the internet. Business models for selling complex products such as annuities, universal life and variable products are still in the initial stage of development. The internet has enormous potential, as it is a medium that provides cheaper and more efficient communication links. This paper is an attempt to analyze the perceived value attribution of ICT systems implementation in Indian insurance companies.

1.1 Objectives of the study

- To study the impact of demographic characteristics on insurance adoption
- To examine the extent of ICT integration in Insurance industry
- To examine the perceived benefits of information technology integration in insurance business

1.2 Organization of the study

This study has been organized into five sections including the present one. The next section is dedicated to data base and research methodology followed in conducting this study. A detail of data collection, sample size and analysis has been presented in this section. The fourth section presents finding of the study with discussion details and Section five deals with conclusion, and implication of the study. The last section was set for recommendations and limitation of the study.

2. Research Materials and design

This study is empirical in nature which considers primary as the main source. The sample includes employees and agents of all insurance firms operating India. The survey instrument which is a questionnaire was prepared with care and finalized after considering a pilot survey with 10 agents and 10 employees. Later questions were modified after a discussion with expert from the industry and academia. In the process of data collection, 500 questionnaires were distributed in cities of northern India states where insurance firms have branches. The method used was drop and pick Random cum convenience sampling. After several reminders, 300 usable questionnaires were obtained which were used for analysis. In the survey instrument, objectives type of question were framed in part1 and part two comprise statements with five-point likert's scale which ranged from strongly Agree to strongly disagree. Data analysis was done by the use of some important statistical tools which included cross-tabulation, chi-square test, percentages, and mean, among others. The statistical software SPSS version 12.0 was used to come up with complete and perfect result and to minimize errors.

3. Findings and Discussion

3.1 Demographic characteristics of the sample

This study considered company type, work expererience and designation of the respondents as important characters for analysis. Each variable (Characteristic) was further segregated Viz. public and private. In case of company type, agents and Employees incase of designation and work experience as less 10 years, 11 to 30 and above 30 years. The result indicates that 56 percent of respondents were belonged to the private sector and 44 percent from public sector. From experience perspective, majority (56%) had less than 10 years of experience and few had over 30 years of experience. Also, it was indicated from table 1 that 60% were employees and 40% agents.

Table 1.Demographic statistic of the sample

Variable		Responses	Percentage
Company type	Public sector	132	44.0
	Private sector	168	56.0
Experience	< 10 years	191	63.7
	11-30 years	104	34.7
	> 30 years	5	1.7
Designation	Agents	120	40.0
	Employees	180	60.0

3.2 Extent of I.T integration in Insurance industry

Insurance companies across India have embraced the use of ICT in various levels depending on the needs of the company and the availability of infrastructure. In this research we seek to know the extent to which the general insurance companies have implemented the use of ICT in their business and for this we asked respondents the questions, to what extent have their companies embraced the use of ICT, the result show that the majority of the respondents (73.0 per cent) agreed that their companies have embraced the use of ICT. Only 10 per cent of the respondents surveyed said their companies have low or very low implementation of ICT applications. Among the respondents from the public sector insurers, 69.7 per cent of them agreed that their companies have highly implemented ICT applications while only 8.3 per cent of them said their companies have low or very low implementation of ICT application. Within the respondents from private sector insurers, the majority 75.6 per cent of agreed that their companies have highly embraced the use of ICT whereas 11.3 per cent of them said their companies have low or very low implementation of ICT applications.

Table2 Extent of ICT Implementation

Sr. No	Variable	Response		
		Public	**Private**	**Total**
		4	8	12
1.	Very low	(3.0)	(4.8)	(4.0)
2.	Low	7	11	18
		(5.3)	(6.5)	(6.0)
3.	50-50	29	22	51
		(22.0)	(13.1)	(17.0)
4.	Much	53	91	144
		(40.2)	(54.2)	(48.0)
5.	Very much	39	36	75
		(29.5)	(21.4)	(25.0)
	Total	**132**	**168**	**300**
		(100)	**(100)**	**(100)**

Figures in brackets represent percentages

It is clear from table 2 that both public as well as private general insurers have implemented IT applications with the private sector slightly higher at 75.6 per cent than public sector insurers 69.7 per cent. The higher implementation in the private sector is perhaps triggered by the presence of their private partner companies which have more experience in e-commerce, and the presence of a younger and IT complaint workforce compared to that of the public sector companies.

3.3 Perceived ICT benefits related to customers

The benefits of implementing information and communication technologies have always occupied the centre stage in research discussions. This study segregated corporate and customer benefits on which related statements were selected as shown on table 3. A five- point likert's scale was used to measure the perception of respondents.

Table 3 Statements showing perceived IT benefits related to customers

Variable Code	Perceived benefits
V-1	Lower investment for establishing the sales and after sales services network.
V-2	Cost reduction and value chain management (e.g. product/ service development).
V-3	Mass customization and innovation.
V-4	More transparency and speed of claims management.
V-5	Desired CRM through continuous service and high productivity.

The result on table 4 indicates the ranks of benefits of IT related to customers in the order of their preference and on the basis of their weighted mean score. It is revealed from the table that more transparency and speed of claims management (1.133), desired CRM through continuous service and high productivity (1.050) and cost reduction and value chain management (1.047) are the most important benefits obtained by customers from the implementation of IT in the insurance industry. However, all the five selected benefits are important from the customers' point of view as can be seen from the table.

Further, it was revealed that more transparency and speed of claims management was considered important benefit by public and private as they ranked it first. Mass customization and innovation was considered second in rank by public firms while private firms considered it sixth in rank. Desired CRM through continuous services and high productivity was considered third in rank by both groups of firms. Also the study indicated that lower investment for establishing the sales and after sale services network to be less important benefit of I.T integration in the insurance industry.

Table4 Descriptive statistics for ICT benefits to customers

Variable code	Insurer group	N	Mean	WAS	Group rank	Total rank
	Public	132	3.82	0.818	5	
V-1	Private	168	4.05	1.054	4	5
	Total	300	3.95	0.950		
	Public	132	3.87	0.871	4	
V-2	Private	168	4.18	1.185	2	2
	Total	300	4.05	1.047		
	Public	132	3.99	0.992	1	
V-3	Private	168	3.89	0.893	6	4
	Total	300	3.94	0.937		
	Public	132	3.99	0.992	1	
V-4	Private	168	4.24	1.244	1	2
	Total	300	4.13	1.133		
	Public	132	3.96	0.962	3	
V-5	Private	168	4.12	1.119	3	1
	Total	300	4.05	1.050		

3.4 Perceived corporate related ICT benefits

The corporate also have benefits in connection to integration of information technology in insurance business. Five statements related to corporate benefits were identified and used to measure the perspectives of insurance on them. It was found that insurers and their agents together from both private and public sectors consider Brand and image promotion (WAS, 1.370), increase of sales volume in terms of premiums (WAS, 1.443) and good knowledge of management and better stakeholder relationship to be most important perceived benefits followed by promotion enhanced with low cost (WAS, 0.950) and extended corporation with partners especially in the re-insurance cases.

Table 5 Statements showing ICT benefits to insurers

Variable Code	Perceived benefits
V-6	Brand and image promotion (as a pioneer and modern company)
V-7	Increase of sale volumes (Premium)
V-8	Promotion enhancement with low cost
V-9	Extended corporation with partners (specially in the re-insurance cases)
V-10	Good knowledge of management and better stakeholder relationship.

Further, it was indicated that public and private sectors firms, each ranked Brand and image promotion as the most vital benefit while the second ranking differed as public firms ranked increase of sales volume (WAS 1.121) and private firms ranked good knowledge of image and better stakeholder relationship (WAS,1.167)as second most important benefit. The result further reveals that both the firms considered promotion enhanced with low cost and extended corporation with partners to the least important among the benefits surveyed. This opinions indicates that all insurance firms considers internal related benefits which relates to brand and management before prioritizing on cost and relationship with partners e.g. technology providing companies and banks which may partner for products and service marketing.

Table 6 Descriptive statistics of ICT benefits to insurers

Variable code	Insurer group	N	Mean	WAS	Group Rank	Total Rank
V-22	Public	132	4.11	1.114	1	
	Private	168	4.57	1.571	5	1
	Total	300	4.571	1.370		
V-23	Public	132	4.12	1.121	2	
	Private	168	4.16	1.161	4	2
	Total	300	4.141	1.143		
V-24	Public	132	3.93	0.932	4	
	Private	168	3.96	0.964	1	4
	Total	300	3.95	0.950		
V-25	Public	132	3.79	0.788	5	
	Private	168	4.08	1.077	2	4
	Total	300	3.95	0.950		
V-26	Public	132	4.00	1.000	3	
	Private	168	4.17	1.167	3	3
	Total	300	1.093	4.09		

4. Conclusion and implication of the study

Every industry, sector or firm in the financial service industry, is looking forward to integrate information technology systems with their traditional business in order to find a place in the competitive market. The use of information technology has been wide in use from management, finance and marketing of insurance services. Also it has lead to the easy payment of premiums which attracted other marketing partners like banks and other non banking finance companies. The findings of this study found that insurance firms in India have implemented information technology systems in their firm with private sector slightly higher than public sector. It was also found that majority of employees are young in age with high potentials of easily understanding the application and efficient use of new systems. Further, it was confirmed that brand and image promotion. Increase of sales and good knowledge of management and better stakeholder relationship were considered important corporate related benefits while transparency, speed of claim management and desired CRM through continuous service and high productivity were considered important customer related benefits. This study will for a base for academia, raise awareness to clients, agents and insurance firms or other non insurance firms planning to offer insurance services to utilize technology in doing insurance business. Regulatory authorities will have raises alarms on their responsibilities of bringing up guidelines regarding doing insurance business in a technology environment

5. Recommendations and Limitation of the study

5.1 Recommendations

- Insurance firms should look form understandable information technology systems which will enable their employees to provide customer-friendly services in order to survive in the market which is so competitive
- Insurance firms should weigh the awareness of customers before integrating any technology related systems though it's considered vital.
- Insurance firm when partnering with technology companies, they should look for secure technologies or those companies with better security systems to protect customer privacy and data.
- Insurers should employ high skilled personnel with much understanding on information technology systems to avoid losses in relation to errors and mistakes.
- Regulatory authorities should provide proper guidelines to avoid fake contracts

5.2 Limitation of the study

This study suffered a number of limitations. First, survey limitation can be attributed to the study since research instruments might have been filed with haste of unwillingness as usual.

This study did not consider opinion from other parts of the country due to economic constraints hence it is a representative study. Non adoption of technologies by other firms with non technology skilled employees and agents could not understand fully technology integration in the insurance industry hence they could give biased answers. Also, this study did not survey clients to weigh their views regarding technology integration in the insurance.

References

Arora, A., (2003), "E-insurance: Analysis of the Impact and Implications of E-commerce on the Insurance Industry", *Masters Dissertation*, London

Bromideh, A.A. and Aarabi, N., (2006), "The Impact of e-commerce on the Iranian Insurance Companies", Master *thesis* submitted to the Department of Business Administration and Social Sciences Lulla University of Technology.

Garven, J.R., (2000), "The Role of Electronic Commerce in Financial Services Integration*", North American Actuarial Journal*, Volume 4, No. 3

Kleffner, E.A., (2002), "The Impact of Technology on Property and Casualty Insurance", *Discussion Paper* of a research symposium on the Information Technology revolution: Policy Implications for financial services, March.

Kumar, J. (2002), "Insurance Distribution Channels" *The Insurance Times,* Vol. XXII, No. 9, PP. 27-29

Lund, H.N., (1996), "The Impact of Technology on the Distribution of Insurance and Financial Services", *Record*, Vol. 22, No. 1, May.

Mishra, R.K., (1999), "Co-Existing of Multiple Distribution Channels." *Yogakshema* Vol. 43 No. 9 September pp 23-26.

Rakovska, G. (2001) "E-commerce business models for insurance: application to US and European market" Centre for Risk management and insurance Research, USA July

Sharma, K. and Agarwal, P., (2005), "Globalization of Indian Insurance Sector-The Emerging Scenario", *Indian Management Studies Journal*, Vol. 9, No. 2, October, PP. 47-57.

Stewart, E.R., Roddis, S.L. and Stewart, B.D., (1998), "Information Technology and Insurance Agent Licensing", *Stewart Economics Inc*., Research Paper