The Impact of Technological Applications of Insurance on Policyholders in Nigeria Insurance Industry

Chibuisi Chigozie¹, Balogun Ojo Tosin², Bakarey Emmanuel Bamidele³, Oyede Saheed Adesunkanmi⁴

1,2,3,4 Department of Insurance, University of Jos, Nigeria **Emails:** chigoziec@unijos.edu.ng (OrcidId/0000-0002-3174-7751), (07037194869)

²Baloguntosinojo@gmail.com (08147481935) ³bakareye@unijos.edu.ng (08062848858) ⁴oyede.saheed@gmail.com (08060210424)

ABSTRACT

This paper studies the importance of technology in promoting efficient and effective service delivery on policyholders in the Nigerian Insurance Industry. One of the major findings of this research is that technological usage has not been fully applied in the management system of insurance services to policyholders. After analysing the responses of structured questionnaires of one hundred and twenty (120) respondents from three (3) different insurance companies, it revealed the profitability of technology on the policyholders. One of the greatest challenges for insurance business is the actual service delivery to its clients and this calls for the establishment of cyber security which will help in protecting the Policyholders data stored in the cloud. Data stored in the cloud will enable the insurance industries to properly manage the data of its policyholders and prevent loss of data as a result of damage to the computer local storage, external storage device or physical damage to the computer. It will also enable the policyholders to take full access of a private platform design by the insurance industry to enable selection of different insurance policies with automated adequate information provided by an AI (Artificial Intelligence) on each policy that will provide full guide to policyholders on renewal or initiating a policy.

Keywords: Technology, Policyholder, Technological Application, Insurance Industry and Nigeria

1.0 INTRODUCTION

1.1 Background of the Study

Technology refers to the use of scientific knowledge to produce tools that assist human beings in their efforts to overcome devastating hazards and impediments to comfort. In this regard, technology refers to the things like the computer, telephone, smart phone, television and radio used to communicate and create, disseminate, store and manage information for a good service delivery. The effects of technology on service delivery vary

depending on how service provider and technology payoffs are measured and analysed. Introduction of technology in the insurance sector will improve every aspect of the industry. Technology plays a major role in data management process in insurance companies by providing flawless services to policyholders from underwriting policies, creating cloud base forms to collect various types of data from policyholders and automated renewal of policy with the help of an artificial intelligence (AI) as stated by Chan (2000) and Kohli & Devaraj (2003). Application of technologies in the insurance industry will help to immediately respond to the claims of the policyholders and also cut down the annual expenditure of the organisations (Hitt & Hitt, 2006, Stoneman & Kwon, 2006).

1.2 Statement of the Problem

Several studies have been done both globally and locally on technological application towards effective service delivery in insurance industry. However, their findings have been inconsistent. Some researchers observed a positive and significant impact of technology use on business performance, others reported an insignificant relationship between technological applications and business performance. Globally, Srinivasan, Lilien and Rangaswamy (2002) conducted a study on influences of technology application and came up with two factors: technological-sensing capability and technological-response capability. Mwangi (2007) argued that technological application in insurance industry is influenced by competition and integration. However, similar studies in insurance sectors have been parsimonious leaving a wide knowledge gap that our study seeks to fill in. This study seeks answers to the question, how does technological application influence the services of Policyholders in Nigeria insurance industry.

1.3 Aim and Objectives of the Study

The main aim of this study is to evaluate the *impact of technological applications* on Policyholders in Nigeria Insurance Industry. The specific objectives are:

- i. To examine if there is an improvement in technological application usage in Nigeria insurance industry since it has been computerised.
- ii. To investigate those areas in which technological applications of insurance have failed in its objectives on policyholders.
- iii. To examine some presuppositions that has existed in displacement of job by technological application.
- iv. To investigate those areas in which technological applications of insurance have improved customer satisfaction.
- v. To investigate those areas in which technological applications of insurance have increased the demand of policyholders.

1.4 Research Ouestions

This study provides answers to the following questions in order to achieve the set objectives:

- i. To what extent has technological application on Policyholders improved the insurance industry?
- ii. To what extent has technological applications failed to achieve its objectives on Policyholders?
- iii. To what extent have technological applications of insurance on policyholders displaced staff from their job?
- iv. To what extent have technological applications of insurance improved customer satisfaction?
- v. To what extent have technological applications of insurance increased the demand of policyholders?

2.0 STATEMENT OF HYPOTHESES

Three hypotheses were formulated for testing from the objectives of the study and research questions and are stated as follows:

Hypothesis One

- H_0 : Technological applications of insurance on Policyholders have not improved the insurance industry.
- H_1 : Technological applications of insurance on policyholders have improved the insurance industry.

Hypothesis Two

- H_0 : Technological applications have failed to achieve its objectives on policyholders.
- H_1 : Technological applications have not failed to achieve its objectives on policyholders.

Hypothesis Three

- H_0 : Technological applications of insurance on policyholders will displace staff from their jobs?
- H_1 : Technological applications of insurance on policyholders will not displace staff from their jobs?

Hypothesis Four

- H_0 : Technological applications of insurance on policyholders will improve customer satisfaction?
- H_1 : Technological applications of insurance on policyholders will not improve customer satisfaction?

Hypothesis Five

- H_0 : Technological applications of insurance on policyholders will increase the demand of policyholders?
- H_1 : Technological applications of insurance on policyholders will not increase the demand of policyholders?

2.1 Significance of the Study

This study would help realise the Government's cause of increasing access to insurance products to the poor and encourage insurance penetration through low-cost products that are appropriate to the needs of low-income consumers. The findings of this paper if implemented will contribute to the increase in the nation's Gross Domestic Product (GDP). Application of the recommendations would help grow insurance businesses and will particularly benefit from best practices in other countries that will be elucidated in this study. The study may inspire prospective researchers to explore more theories and literature on how technological application has influenced the services of policyholders towards the growth and performances of insurance industry in Nigeria. As such, the study forms a basis for future research.

3.0 REVIEW OF RELATED LITERATURE

3.1 Conceptual Review

In this section, this study looked at the relationship between technology, policyholder and online insurance.

Technology

Technology is the application of scientific knowledge to introduce equipment such as the computer, telephone, smart phone, television, radio, etc. that help human beings in their efforts to overcome devastating risks and impediments to comfort. Technology is regarded as an enabler of innovation in insurance business (Koellinger, 2014). Technological application helps in transforming organisations for strategic modern alignments in service delivery to its customers (Graham, 2007).

Policyholders

A policyholder (insured) is a person who owns an insurance policy. An insurance policy is a core legal contract existing between the insurance company (insurer) and the policyholder (insured/client) who purchases, pays for and agrees to the terms and protections outlined in the policy documents. Technological application allows Policyholders to recover and rebuild their data base for effective services from their insurer after a catastrophe (Lawrence and Lorsch 2007).

Online Insurance

Online insurance refers to the buying and selling of insurance policies online. Insurance is subject to the principle of utmost good faith which makes it convenient for people to conduct the business online, as both parties have absolute duties to disclose all material facts otherwise any contract concluded is void. All services and activities of insurance are carried out online (Stroeken& Jan, 2001, Beattie, 2010).

3.2 Theoretical Review

Utility theory

The insurance industry exists because people are willing to pay a price for being insured. There is an economic theory that explains why insureds are willing to pay a premium larger than the net premium, that is, the mathematical expectation of the insured loss. This theory postulates that a decision maker, generally without being aware of it, attaches a value U(w) to his wealth w instead of just w, where u(.) is called his utility function. To decide between random X and Y, he compares E[U(W-X)] With E[U(W-Y)] and chooses the loss with the highest expected utility. With this model, the insured with wealth w is able to determine the maximum premium P+ is prepared to pay for a random loss X. This is done by solving the equilibrium equation E[U(W-X)] = U(W-P) (Graham, 2007).

3.3 Empirical Review

According to Harrulton, Karen, Cherye and Fergworon (2002), effective management of maintenances in the productivity of a company is nearly not possible without technological application. Therefore, the application of technology on policyholders will enhance reliability and capability of insurance industries that has a poor success rate even in the developed countries. This paper concentrates on knowing the rationale for poor rates of success and gives an outline of vital things which are to be added to make sure that a programme with discipline and necessary resources can give success through technological applications of insurance on policyholders.

4.0 RESEARCH METHODOLOGY

4.1 Research Design

A research design encompasses the methodology and procedures employed to conduct scientific research. The design of a study defined the study type. The study employed a case study approach which allows for intensive observation and investigation of silent factors in the units of study (Cooper & Schindler, 2003). On the whole, this research is designed to facilitate a better understanding of technological applications on Policyholders in the Nigeria insurance industry. The UML diagram for various interactions that exists between the user and the application is designed as:

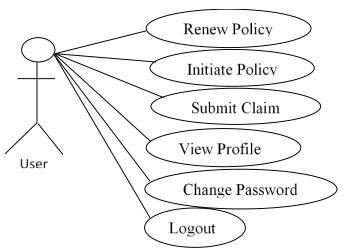


Figure 3.1: The UML Diagram

Activity Diagram

Activity diagram describes the operational step-by-step work flow of components in a system.

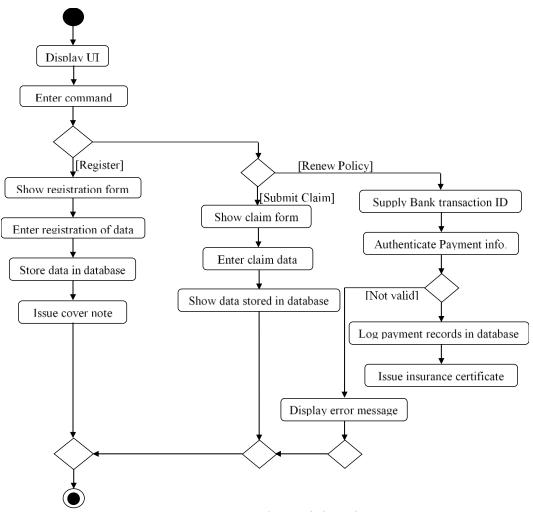


Figure 3.2: The Activity Diagram

Population of the Study

The target population for this study is the three major established insurance industries in Nigeria namely; Industrial and General Insurance (IGI), LEADWAY Assurance Company and NICON Insurance Plc. One hundred and sixty questionnaires were distributed to the staff of these insurance industries who are the respondents in order to get their opinions concerning the subject matter and one hundred and twenty questionnaires were retrieved and used for this study which is a sample size of 75%. Probability sampling scheme was employed where every unit in the sampling frame has a chance (greater than zero) of being selected. This probability can be accurately determined through self-weighting. Simple random sampling was used and it gives equal chance to all subsets in the population and the estimates are easy to calculate.

Data Collection

The study gathered primary data. Primary data was obtained through online Google form administering of questionnaires to the staff of some selected insurance companies. The use of questionnaires was ideal since it guaranteed confidentiality to the respondents thus, they acted without any fear or embarrassment. Questionnaires were circulated and filled by the respondents. Primary data enhances reliability since it was conducted by the researchers of this study. Respondents were selected randomly in each stratum; hence we applied probability sampling technique to obtain the desired number of respondents (Kothari, 2004).

Reliability and Validity of Data

The reliability was examined by testing the instruments for the reliability of values (Alpha values) as recommended by Cronbatch, (1946). According to Sekaran (2001), Alpha value for each variable under the study should not be less than 0.6 for the statements in the instruments to be deemed reliable. Consequently, all the statements under each variable were subjected to this test and proven to be above 0.6. A measure is reliable when it is error free and consistent across time and across various items in the instrument.

Method of Data Analysis

After data collection, questions were coded and entered into Statistical Package for Social Sciences (SPSS version 22) then analysis run. Data were analysed using descriptive statistics for quantitative data and content analysis for the qualitative data. Descriptive statistics involved the use of frequencies, percentage, mean and standard deviation. Quantitative data were presented in tables, bar graph and pie chart while explanations to the same were presented in prose (Mugenda & Mugenda, 1999).

4.2 Conceptual Model

The independent variable for this study is technological applications which was used to see how data of policyholders (dependent variable) are managed; also, how revenue received from policyholders can be improved in the insurance industry. The relationship between the dependent variable and the independent variables has been expressed using the function below:

$$Y = f(X_1) \dots (1)$$

Where:

Y = Policyholders

 $X_1 = Technological applications$

Policyholders' data were measured by percentage increase in the usage of technology in the insurance industry.

4.3 Analytical Model

The algebraic expression of the regression model takes the following form:

$$\gamma = \alpha + \beta 1X1 + \varepsilon_t \tag{2}$$

where;

Y= the dependent variable

a= a constant

 β_1 =the slope of the regression

 X_1 =the independent variable

 ε_t =Model error

The statistical significance of the relationships between the dependent and the independent variables was measured at confident interval 95%. Analysis of variance between the independent variables was measured at a significant variable and dependent variable was measured at a significant level of 0.05. If the p value of the model is less than the level of significance (0.05), then the independent variables would be taken as having an impact of the dependent variable. If the usage of technological applications increases, then there will be an improvement in the management of policyholder's data. The study would conclude that technological applications have a significant impact on policyholder's data. If the P- value is greater than 0.05, then the model is insignificant and therefore the study cannot conclude that the independent variables have got a significant impact on the dependent variable.

5.0 DATA ANALYSIS, RESULT AND DISCUSSION

5.1 Demographical Characteristics of the respondents

Table 1: Age Distribution Characteristic of the respondent

GROUP	FREQUENCY	PERCENTAGE (%)
18 - 30 Years	18	17.0
31 - 40 Years	41	38.7
41 - 50 years	41	38.7
51 - 60 years	6	5.7
Above – 70 years	0	0
Total	106	100.0

N = 106

Source: Primary Data (2023)

Table 1 indicates that 18 representing 17% of the respondent were from age 18-30; (38.7%) were age 31-40; 41(38.7%) were from 41-50 years; 6 representing 5.7% were from age 51-60; while none (0%) was above 70 years. This means that majority of the respondent were adult which might have experience on technological applications on policyholder in insurance industry.

Table 2: Distribution of respondents by Gender

Group	Frequency	Percentage (%)
Female	33	31.1
Male	73	68.9
Total	106	100.0

N = 106

Source: Primary Data (2023)

Table 2 shows that 33 representing 31.1% of the respondent were female, whereas, 73 (68.9%) were male; from all indication, many participants were male, and both genders equally participated in the study. As such, the validity of the finding may be interpreted without gender bias.

Table 3: Distribution of Respondent by Insurance Companies

Companies	Frequency	Percentage(%)
IGI	30	28.3
LEADWAY	39	36.8
NICON	37	34.9
Total	106	100.0

N = 106

Source: Primary Data (2023)

Table 3 reported that 30 (28.3%) of the respondents are policyholder with IGI, 39 (36 %) are Policyholders with LEADWAY, while 37 (34.9%) are policyholders with NICON. It means that majority of the participants are policyholders with NICON. It means that majority of the participants are policyholders with LEADWAY since the respondents cut across 3 insurance companies, and the fact that many respondents are policyholders with LEADWAY insurance companies, more reliable information may be obtained on technological applications on Policyholders.

Table 4: Educational Qualification of the Respondents

LEVEL	Frequency	Percentage(%)
Primary	0	0
Secondary	4	3.8
Tertiary	102	96.2
Total	106	100.0

N = 106

Source: Primary Data (2023)

Table 4 indicated that 102(96.2%) of the respondents attained tertiary level of education, 4(3.8%) has secondary, whereas, none of them (0.0%) had primary level of education. It suggests that majority of the Policyholders attained tertiary level of education. It means that errors from respondents' feedback on the required information might be minimised.

5.2 Research Questions and Hypotheses Results

Research Question One: To what extent has technological application on Policyholders improved the insurance industry?

Table 5: Extent to which technological application of insurance on policyholder has

improved the insurance industry

Variable	\overline{X}	SD	r(Effect size)	Remark
Improvement in CMS	2.37	.46	0.12(12.2%)	very weak
Policyholders	2.70	.55		-

N=106

Source: Primary Data (2023)

Table 5 results indicate that a weak relationship exists between improvement in technological applications of insurance (TA) (M=2.37, SD=0.46) on Policyholders (M=2.70, SD=0.55). r= 0.12, with an effect size of 12.2%. This implies that there has not been improvement of technological applications of insurance on Policyholders.

Research Question Two: To what extent has technological applications failed to achieve its objectives on Policyholders?

Table 6: Extent to which technological application has failed to achieve its objectives

on Policyholders

Variable	\overline{X}	SD	r(Effect size)	Remark
Failure of web/cloud CMS	3.53	.49	0.5(5%)	very weak
Policyholders	2.70	.55		
NT 106				

N=106

Source: Primary Data (2023)

Table 6 results indicate that a very weak relationship exists between the objective of web/cloud technological application (TA) (M= 3.53, SD=0.49) on policyholder (M=2.70, SD=0.55) r=.005, with an effect seize of 5%. This implies that wed/cloud technological application failed to achieve its objectives on Policyholders in the insurance industry.

Research Question Three: To what extent have technological applications of insurance on policyholders displaced staff from their job?

Table 7: Extent to which technological applications of insurance on policyholders has displaced staff from their jobs

Variable	\overline{X}	SD	r(Effect size)	Remark
Displacement of job	3.41	.64	0.38(3.8%)	very weak
Policyholders	2.70	.55		

N=106

Source: Primary Data (2023)

Table 7 results indicate that a very weak relationship exists between the displacement (M= 3.41, SD=0.64) when technological application (TA) is implemented on policyholders (M=2.70, SD=0.55) r=.038, with an effect seize of 3.8%. This implies that technological application has a weak relationship on job displacement.

Table 8: Extent to which technological applications of insurance on Policyholders have improved customers' satisfaction.

Variable	\overline{X}	SD	r (Effect size)	Remark
Customer Satisfaction	1.23	.65	.903 (90.3%)	Very Strong
Policyholders	2.70	.55		, c
N=106				

Table 8; Results indicate that a very strong relationship exists between customer Satisfaction (M= 1.23, SD=0.64) when technological application (TA) is implemented on policyholders (M=2.70, SD=0.55) r=.903, with an effect seize of 90.3%. This implies that technological application has a strong relationship towards Customer Satisfaction.

Table 9: Extent to which technological applications of insurance on policyholders has increased the demand of insurance policies.

Variable	\overline{X}	SD	r (Effect size)	Remark
Increase in Demand	1.22	.65	0.758(75.8%)	Very Strong
Policyholders	2.70	.55		-

N = 106

Table 9; Results indicates that a very strong relationship exists between Increase in demand of insurance policies (M= 1.22, SD=0.65) when technological application (TA) is implemented on policyholders (M=2.70, SD=0.55) r=.758, with an effect seize of 75.8%. This implies that technological application has a strong relationship towards increase in the demand of insurance policies.

Hypothesis One

 H_0 : Technological applications of insurance on Policyholders have not been improved in the insurance industry.

 H_1 : Technological applications of insurance on policyholders have been improved in the insurance industry.

Table 10: Regression of technological applications of insurance on Policyholders has not been improved in the insurance industry.

				andardiz oefficient	
Model	В	Std. Error	Beta	T	P
1 (Constant)	2.354	.283		8.332	.000
Improvement in CMS	.147	.117	.122	1.252	.213

 $R(R^2) = 0.122(0.015)$

F (df) = 1.567(1,104), p=.213

Dependent Variable: Policyholders **Source**: Primary Data (2023)

Table 10 shows the linear regression of technological application of insurance on Policyholders has not been improved in the insurance industry. The analysis indicates that there has been non- improvement of technological application (TA) which contributed 12.2% change of policyholder (β =0.122, t=1.252, p>0.05) not taking insurance policy, with standard error =0.086. An increase in 14.7% policyholders' amount to 1.5% alteration of improvement of technological application. It means technological applications on policyholders have not been improved in the insurance industry.

Hypothesis two

 H_0 : Technological applications have failed to achieve its objectives on policyholders. H_1 : Technological applications have not failed to achieve its objectives on policyholders.

Table 11: Regression of technological applications has failed to achieve its objectives on Policyholders.

	Unstandardized Coefficients			andardize Coefficient	
Model	B Std. Error		Beta	T	P
1 (Constant)	2.479	.399		6.210	.000
Failure of web/cloud CMS	.0.63 .112		.055	.563	.575

 $R(R^2) = 0.055(0.003)$

F (df) = .317(1,104), p = .575

Dependent Variable: Policyholders

Source: Primary Data (2023)

Table 11 shows the linear regression of web/cloud technological application failure in achieving its objectives on policyholders in insurance industry. The analysis indicates failure of web/cloud technological application contributed 5.5% change on policyholders (β =0.055, t=0.563, p>0.05) with standard error =0.112. An increase in 6.3% failure of technological application (TA) amounts to 0.3% alteration of achieving its objectives. It

means that technological applications have failed to achieve its objective on policyholders in the insurance industry.

Hypothesis three:

 H_0 : Technological applications of insurance on policyholders will displace staff from their jobs?

 H_1 : Technological applications of insurance on policyholders will not displace staff from their jobs?

Table 12: Regression of technological applications of insurance on policyholders on displacement of jobs.

	Unstandardized Coefficients			tandardize Coefficient	
Model	B Std. Error		Beta	T	P
1 (Constant)	2.588	.295		8.764	.000
Displacement of Jobs.	.033	.085	.038	.390	.697

 $R(R^2) = 0.038(0.001)$

F (df) = .152(1,104), p = .697

Dependent Variable: Policyholders

Source: Primary Data (2023)

Table 12 shows the linear regression of technology applications of insurance on policyholders on displacement of jobs. The analysis indicates that technology applications contributed 3.8% change on displacement of jobs (β =0.038, t=.390, p>0.05) with standard error =0.85. An increase in 3.3% job displacement amounts to 0.0001% alteration of job not being displaced. It means technology applications will displace staff from their jobs.

Hypothesis Four

 H_0 : Technological applications of insurance on policyholders will improved customer satisfaction?

 H_1 : Technological applications of insurance on policyholders will not improve customer satisfaction?

Table 13: Regression of technological applications of insurance on policyholders towards Customers satisfaction.

Model	Unstandardized Coefficients		Standardized Coefficients			
	В	Std. Error	Beta	t	P	
1 (Constant)	.072	.031		2.333	.020	
Customers satisfaction	.952	.023	.903	41.814	.000	

R(R2) = 0.903(0.015)

F(df) = 1748.378 (1, 398),

p = .000

Dependent Policyholders.

Table 13 shows the linear regression of technology applications of insurance on policyholders towards Customer satisfaction. The analysis indicates that technology applications contributed 90.3% change on satisfaction (β =0.903, t=41.814, p>0.05) with standard error =0.23. An increase in 95.2% customer satisfaction amounts to 0.015% alteration of customers not satisfied. It means technology applications will enhance customers' satisfaction.

Hypothesis Five

 H_0 : Technological applications of insurance on policy holders will increase the demand of policyholders?

 H_1 : Technological applications of insurance on policyholders will not increase the demand of policyholders?

Table 14: Regression of technological applications of insurance on policyholders towards increase in demand of insurance policies.

Model		Unstandardized Coefficients		Standardized Coefficients		
	В	Std. Error		Beta	t	P
1 (Constant)	.080	.060			1.327	.185
Increase in demand	.994	.043		.758	23.210	.000

 $R(R^2) = 0.758(0.24)$

F(df) = 538.707 (1, 398), p = .000

Dependent Policyholders.

Table 14shows the linear regression of technology applications of insurance on policyholders towards Increase in demand. The analysis indicates that technology applications contributed 75.8% change on increase in demand (β =0.758, t=23.210, p>0.05) with standard error =0.43. An increase in 94.4% customer satisfaction amounts to 0.24% alteration on increase in demand of insurance policies. It means technology applications will contribute towards increase in demand of insurance policies.

6.0 DISCUSSION OF FINDINGS

The discussions have been factored in details and were analysed under each table of the statistics results. The response rate was satisfactory to draw conclusions for this study. The findings of the study concluded that technology applications of insurance on policyholders have not been applied effectively in the insurance industry. The analysis also indicated the relevance of technological application on policyholder on how it will increase the demand of policies and also lead to customers' satisfaction.

7.0 CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

The aim of this study is to create an online insurance policy which makes insurance actives faster and reliable. The relevance of technological applications for online insurance

was discussed. Embedded in the system design was UML diagram which shows the activities and action in the system. The application of technology on Policyholders will be of great impact to insurance industry if it is fully adopted. Online insurance application on Policyholders needs to be improved for business activities in insurance companies; hence it is advised that insurance companies in Nigeria should adopt online insurance as a more reliable way to transact insurance businesses. The result would be of benefit to the insurance company which shows that policyholder's data, policy wordings, flexibility in transaction tails can be easily traced and accessed with the application of technology.

7.2 Recommendations

The applications of technology on policyholders will be of great impact to insurance industry and can be used by any insurance company. The following recommendations are proposed:

- i. Insurance industry needs to improve on technological applications of insurance services for fast and reliable transaction of insurance business in Nigerian
- ii. Policyholders should ensure to print out payment transaction receipts for future references and create password with long characters so as to make password hacking difficult.
- iii. Policyholders should ensure safekeeping of password since it provides access to the system and avoids the use of public network and computer to access the system
- iv. Policyholders should visit insurance companies from time to time to validate or confirm any transaction made online.
- v. Some insurance activities can only be conducted by insurance personnel. These activities include underwriting and loss adjustment; staff in the insurance industry needs to acquire more training.

Areas for Further Research

The Impact of Technological Applications of Insurance on Policyholders in Nigeria Insurance Industry has brought the need for further research in Essential need of Cyber Security to eliminate Phishing Scam on policyholder data. Further studies can be carried out on the use of UAV (unmanned aerial vehicle) /RTF (ready to fly) Drones to enhance effective supervision and underwriting process. Further studies can also be conducted on Coherent need of Unstructured Supplementary Service Data (USSD) in enhancing uncomplicated Insurance Transactions.

REFERENCES

Beattie, A. (2010). Introduction to Insurance. Retrieved 10th March, 2012 from http://www.thehistoryof.net/the-history-of-insurance.html.

Chan, J. (2000) "Organizational Learning Activities in High-Hazard Industries: The Logics Underlying Self-Analysis," *Journal of Management Studies*, 4(2):1-24

- Cooper, D.R and Schindler, P.S.(2003). *Business Research Methods*. 8th Edition, McGraw-Hill Irwin, Boston.
- Cronbatch, L. J. (1946). Response Sets and Test Validity. *Journal of Educational Psychology*.6 (3): 475-494.
- Graham, N. (2007) Strategic Alignment: Leveraging Information technology for Transforming Organizations. *IBM Systems Journal*. 32 (1): 4-16
- Harrulton, Karen L and Cherye L. Fergworon (2002). Personal Risk Management and property liability insurance, 1st Edition. Malvern, PA American Institute for chartered property casualty underwriters/insurance institute of America.
- Hitt, R. and Hitt, K. (2006). Architectural Innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*, 35:9-30.
- Irukwu, J. O. (1974). Accident and Motor Insurance in West Africa (Law and Practice). Caxton Press (West Africa) Ltd, Ibadan.
- Koellinger, S. (2014). The Micro-insurance Revolution: Sustainable Finance for the Poor.
- Kohli, A. & Devaraj, S. (2003). Integrating the fuzzy front end of new product development, *Sloan Management Review*.
- Lawrence, P. and J. Lorsch (2007) *Organization and Environment*, Boston: Harvard School of Business Administration Press.
- March, M. & Sutton, R. (1997). The art of high technology management. *Sloan Management Review*, 24:18-31.
- Mugenda, O. M. and Mugenda, A. G. (1999). Research Methods: Quantitative and Qualitative Approaches. Acts Press, Nairobi.
- Mwangi, V. (2007). ICT Adoption, Competition and Integration in Kenya: A Case Study. *Management Review Journal*, 29(3) 19-30.
- Obasi, Ngwuta(2007) Modern Insurance Business Management. Nigerian Insurers Association, VI, Lagos: 112 120.
- Oluoma, Remi O.(2006). *Elements of Insurance: Investment Limited*, Yaba, Lagos. 4(6):146-150.
- Rejola, George E. (2008) *Principles of Risk Management and Insurance* 10th Edition. Pearson International: USA, 2(3):495 544.
- Sekaran,. U. (2001). Research Methods for Business: A Skills Building Approach. 2nd Edition, John Wiley and Sons. Inc., New York.
- Srinivasan, W., Lilien, S., & Rangaswamy, R. (2002) Information Technology: When is it Worth the Investment? Communications of the IIMA, 7(3):119-122.
- Stonman, P. and Kwon, M.J.(2006). Technology Adaptation and Firm Profitatbility. *The Economic Journal*, 3(1):106-124
- Stroeken, Jan H.M. (2001). The Adoption of IT by SMEs: the Dutsh case. *Journal of Enterprise* Cultuer, 9(1):129-152
- Vanghan, E.J. and Vanghan, T. (2003) *Fundamental of Risk and Insurance*. John Wiley and Sons, Inc. USA. 22(9):508-548.