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IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) ON INSURANCE MARKETING IN POST COVID-19 ERA IN NIGERIA

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Abstract: The study examines the impact of information communication technology on insurance marketing in post COVID-19 era in Nigeria. It identifies the imperatives for adoption of ICT to promoting efficient and efficient service delivery in the insurance industry as a strategy for attainment of the profit maximization objectives of insurance companies in Nigeria. The study adopted survey research design, using responses of structured questionnaire of 50 respondents from the four selected insurance companies in Nigeria. The findings revealed that there was statistical significant relationship between effective implementation of ICT and insurance marketing strategies in Nigeria. This implies that adoption of ICT by insurance companies can enhance efficiency and quality of service delivery. It was recommended that for maximum benefits from ICT, government, regulators and other stakeholders in the insurance sector must synergize to eliminate the challenges of digital insurance marketing, as this will encourage investment in ICTs thereby ensuring the effectiveness of the insurance sector in Nigeria providing sustainably financial guarantees to the insuring public, National Assembly should enact potent laws inculcating digital insurance to reduce the cost of insurance apathy aimed at promoting, and restoring trust and confidence in the insurance business in Nigeria, and the stakeholders and management of the insurance companies must as a matter urgency their personnel towards adopting recent development in ICT in marketing research and product development.

Keywords: Information Communication Technology (ICT), Insurance Marketing, COVI-19, Innovation, Economy.

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INTRODUCTION

Insurance as a policy is primarily bought by a person or entity referred to by Ray, (2009) as the insured for protection against unforeseen occurrences and risks. It functions as risk prevention and protection mechanism put in place by the insurer against present and future unforeseen risk occurrences against the insured. As a service industry and operating in information driven environment courtesy of advances in information and communication technology (ICT), the industry's relevance depends largely on adoption of ICTs. Information and Communication Technologies (ICTs) refer to all communication technologies, including the internet, wireless networks, phones, computers, software, middleware, video-conferencing, social networking, and different media applications and offerings enabling users to access, retrieve, store, transmit, and manipulate information in a digital form (Hoque & Alam, 2010).

New technologies have significantly impact business organizations to overcome barriers - cost, time and distance - to global operations. Business organizations, insurance companies inclusive, operate in a complex, dynamic and competitive environment. Broadly, information and communication technology (ICT) involves the use of electronic devices for storing, processing, analyzing and distributing data. The rapid expansion and increasing use of ICT has immensely promotes scientific approach to information handing and processing. Moreover, ICT enhances management functions of planning, organizing and the nature of services offered in the insurance industry. It has greatly improved insurance operations globally in view of the available innovation devices to enhance the speed and quality of service delivery. ICT, therefore, enhances process and procurement required to attain organizational and industrial goals (Oni and Adeyemo, 2023).

The use of ICT in the insurance industry is relevant and beneficial considering the significant role of insurance in the economy. Amongst other, insurance promotes business activity by providing financial intermediary services necessary to induce economy growth (Ward and Zurbruegg, 2000; Liedtke, 2007). The insurance industry consolidation, particularly the recapitalization, seeks to ensure that the industry contribute positively to the economy (Obaremi, 2007). ICT usage has considerately improved marketing operations and performance of insurance industry in Nigeria (Osabuohien, 2008). Consequently, it is expected that the impact of the consolidation will enhance the use of ICT by stimulating some form of competitive advantage,

accuracy and efficient transactions to improve the quality of service delivery in the Nigerian insurance industry.

This is possible because according to Statistica (2020), there are about 170 million mobile subscriptions in Nigeria alone, though with only about 10 to 20 percent of the population using smartphones but the majority of the mobile users still uses feature phones which offer basic phone functions like voice calling and text messaging. Smartphone usage is projected to grow in the future to around 60 percent by 2025 presenting a strong opportunity for insurers to reach out to more prospects. Also, the dearth of digital infrastructure like laptops, internet facilities, skilled personnel, electricity amongst others slowed down insurance companies from reaching out remotely to their targets, a challenge in the industry's ability to reach out and provide the needed covers during the pandemic. During the COVID-19 lockdown, insurance offices were under lock and key and marketing staff had no access to online resources to continue their services remotely from home with those affected by the pandemic and hardly were any person covered for the COVID-19 risk (Abubakar and Ibrahim, 2022).

Most persons in remote and rural communities continue in their rural agricultural, fishing and farming occupations without insurance protection and support against theft, losses to natural disasters and the like, because they do not understand the real value insurance adds to them and continues to see it as an unnecessary investment. Technological innovations such as the internet, online, phones services have gone viral and most persons living even in remote Nigerian villages also use phones. This can be utilized to provide insurance products and services seamlessly and education them on insurance services for the overall development of the sector and the economy. It is on this background that this study seeks to assess the impact of information communication technology on insurance marketing in post COVID-19 era in Nigeria.

REVIEW OF LITERATURE

Conceptual Review

Information and Communication Technology

Communication refers to the exchange of information from person to person or from one place to another. When action produce a reaction, whether positive or negative, communication has taken place. It involves the exchange of ideas, facts, opinions, attitudes and beliefs between people. It is not a one-

way affair. There must be a sender to transmit the message, and receiver to make appropriate decisions on how the rest of the exchange should continue (James and Short, 2004).

Microsoft Encarta (2009) defines information and communication technology as the processing of data via computer: the use of technologies from computing, electronics, and telecommunications to process and distribute information in digital and other forms. It consists of combining the technology of computers and communications to provide information processing services throughout the office or around the world. Sajuyigbe and Alabi (2012) observe that ICTs encompass technologies that can process different kinds of information (audio, video, text, and data), and facilitate different forms of communications among human agents, and among information systems. It involves harnessing electronic technology for the information needs of persons say individuals and corporate entities.

Information and communication technology (ICT) is another term for information technology (IT) which stresses the role of unified communications (Murray, 2011) and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information (Wikipedia, 2018). ICT depicts the study of the technology used to handle information and aid communication.

Information communication technology according to Unagha (2016) encompasses computer and telecommunication. It is concerned with the technology used in handling acquiring processing, storing and dissemination of information. Thus, information communication technology is any technology used in producing, organizing and passing information through. Similarly, oxford advanced learners Dictionary sees ICT as electronic media used in processing analyzing storing and sending out information. Evey et al… (2017) observed that ICT is innovative device that can carry out such functions as relieving, storing, computing, analyzing, transmitting and retrieving information presented to them and allowing for one to one or group communication among humans.

Obashoro (2017) identify ICT infrastructure to include multimedia, CD ROMS, MP3 players, websites, discussion boards emails, computer aided assessments, learning management software, blogs etc. In the same vein, Folorunso, Longe and Ijere (2018) identified ICT infrastructure to include internet world wide network (www), Electronic data interchange (EDI)

local area network (LAN) wide area network (WAN), and protocols contact management and metal data standard (MDS).

Insurance Marketing

Marketing is a discipline that deals with market issues, market needs and how to meet those needs. Marketing, as a business philosophy of intensive production, places at the center of its interest the analysis and consideration of all problems related to the turnover and sale of goods from producers to consumers (Simonović et al, 2012). It can be freely stated that sales are one of the basic and at the same time the most important marketing functions in every insurance company. The implementation of this function is in the greatest direct correlation with the overall success of the entire insurance company. In order for a company to be able to successfully sell insurance services, the sales function must be treated as part of integral marketing. This means that it is necessary to plan and generate such insurance services that will, by their quality, price, availability and competitive advantage, meet the needs of potential customers of insurance services, or future insurers.

A relationship marketing approach allows the insurance marketer to offer a product in response to needs triggered by the customer and based on experience and information gathered over time. Sales and profitability can be dramatically increased because the more a marketer knows about a customer the more effectively the customer can be approached with appropriately targeted products (Harrison, 1993). One of the major themes in relationship marketing, as well as a key to profitability, is to develop long-term relationships with customers. This involves the ability to retain customers, and is in turn, dependent on agents possessing the "right" characteristics. What is "right" varies depending on whether the customer is an individual or a company. In insurance language these two types of customers may be called personal lines policyholders and commercial lines policyholders respectively.

Information Communication Technology (ICT) and Insurance Marketing

Violin (2012) observes that for an insurance firm to compete successfully and operate efficiently it must deploy information technologies such as mobile devices, social media, big data, predictive modelling and cloud computing. Besides matching competition, IT is important in tackling key challenges in the industry, such as growth and retention, risk and compliance, and efficiency and expense control. Insurance companies in Nigeria are not insulated from

the international market. Moreover, local companies rely on international reinsurance for them to operate successfully especially when catastrophic and special risks are concerned. It therefore means that to be in communication and competition with the international community, Nigerian insurers must be up-to-date in information technology.

With the help of IT, insurance products communication have become cheaper, quicker and more efficient. Insurance marketers can now communicate with anyone around the globe by text messaging them or sending them e-mail, Facebook and WhatsApp more recently, for almost instantaneous response. The internet has also opened up face-to-face direct communication from different parts of the world, thanks to the help of video conferencing (Okafor, 2009). Baffoe, (2009) and Ocra, (2013), corroborated this position. Technologies such as videoconferencing, e-mail, cell phones, VOIP have made online real-time interactions within and outside the organisation possible. Apampa (2010) doubts if there is any insurance firm that does not host a website where interactions, feedback and information are available round the clock. Definitely there's none.

Narrowing down the web business further, Honarbari and Alidoost (2013) define e-insurance generally as the application of internet and IT in production and distribution of insurance services; and specifically, as providing an insurance cover through a policy which is demanded, proposed, negotiated and contracted online. E-commerce is merely one aspect of e-business.

As price cannot be used in insurance product differentiation, Honarbari and Alidoost (2013) noted that services become the yardstick and such sales made electronically, that is, e-insurance will play an important role in reducing prices. Cost reduction will lead to reduction in price, which will improve insurance product purchase with positive impact on insurance penetration and organization's profit. In close relation to this, Meshkat, ei al., (2012) found that by selling insurance directly to the final consumer, and avoiding commission paid to middlemen, cost of doing business will reduce.

As the insurance business is largely information based, policies can be digitalized. Consequently, ICT and e-business can be appropriate for the industry with impact felt in the following areas, according to market transparency, virtualization, lowered market entry barriers and specialization (Mennati, 2010).

The use of the internet can reduce the physical contact required for insurance to be sold and bought. Products can be presented on the organizations' websites

just as application can be done online; thus, this can reduce customers' demand for personal information and facilitate closing contracts. The company's website can be an important platform for dissemination of information on the company and its services, even when products are not sold – a form advertisement. Access to a wider market is also a benefit. With the internet, the entire globe becomes the firm's marketplace, although a segment may be the target. Operating in a wider market has a tendency of increased turnover and profit. In its marketing effort, the insurance company collects personal data on prospective and existing customers in respect of their cultures, religions, hobbies, birthdays, and similar information concerning their loved ones. The insurer relies on the computer to remind him of his marketing meetings, the birthdays and important occasions of his esteem clients and prospects.

Automatic premium computation modules allow individual contract design. Following cost cuts from automated contracting process, doing insurance business online can lead to reduced rate being offered to the client. ICT is used to improved agency relationship. In this case, Violino (2012) opined that organizations are "implementing software to support the use of electronic application forms for insurance policies, with the goal of automating process steps and achieving straight-through-process (STP)." STP will enable the entire system to operate electronically thereby doing away with manual processes; operating costs will reduce while services will speed up.

Theoretical Review

Technology Acceptance Model (TAM)

This theory was developed by Davis (1989). According to Huynh and Yaling (2013) one of the most widely used theoretical models is the Technology Acceptance Model (TAM).TAM is widely used to assess users' acceptance and adoption of new technologies. In the context of insurance marketing, TAM can help explain how individuals in Nigeria perceive and embrace ICT tools such as online platforms, mobile applications, and virtual communication channels for insurance-related activities. It comprises two primary beliefs: perceived ease of use and perceived usefulness. The model suggests that individuals are more likely to adopt technology if they find it easy to use and perceive it as beneficial. In the post-COVID-19 era, where digitalization has become even more crucial, TAM can provide insights into the factors influencing the adoption of ICT in insurance marketing, helping policymakers and industry players to design strategies that enhance technological acceptance among consumers.

Review of Empirical Studies

Ogunnaike and Adenuga (2021) studied the digital revolution in Nigerian insurance: A Post-COVID-19 Analysis. Using a mixed-method study to explore the impact of Information Communication Technology (ICT) on insurance marketing in Nigeria post-COVID-19, they combined qualitative interviews with key stakeholders and quantitative surveys distributed to a stratified sample of 500 insurance consumers, the researchers identified a significant shift towards digital channels. Findings emphasized the importance of perceived ease of use and accessibility of online platforms in influencing ICT adoption. The study highlighted the imperative for insurers to enhance digital capabilities to meet evolving consumer demands, stressing the need for a digital transformation in the post-COVID-19 insurance landscape.

Abubakar and Ibrahim (2022) investigated on the adoption patterns of ICT in the Nigerian insurance sector Post-COVID-19. They adopted cross-sectional design and structured survey. The study involved 300 professionals in the sector, and analysis revealed a positive correlation between ICT adoption and organizational performance. Companies embracing digital innovations demonstrated higher customer satisfaction and operational efficiency. The findings underscored the importance of investments in technology infrastructure and training for insurance firms to fully leverage the benefits of ICT in the post-COVID-19 era.

Oni and Adeyemo (2023) investigated on consumer perceptions of digital insurance services: A post-pandemic perspective in Nigeria" Oni and Adeyemo's qualitative study delved into consumer perceptions of digital insurance services in post-COVID-19 Nigeria. Using focus group discussions and interviews with 80 participants, the research revealed an increasing acceptance of digital services. However, concerns related to data security and the desire for personalized interactions emerged as significant barriers. The study recommended transparent communication and enhanced cybersecurity measures to build trust and encourage greater adoption of ICT in insurance marketing in the post-COVID-19 era.

Sibindi (2022) studied information and communication technology adoption and life insurance market development: evidence from Sub-Saharan Africa. A sample of 31 sub-Saharan African countries for the period 2005–2020 was used. Panel data techniques were employed, and the pooled ordinary least squares, fixed effects, and random effect estimators were used to test the relationship between life insurance density and the measures for ICT adoption (proxied by fixed telephones, internet use, mobile cellular telephones, and

broadband) as well as financial freedom being the control variable. The findings discuss that the life insurance market development variable was positively related to three of the four ICT adoption variables, namely, fixed telephone, mobile cellular telephone, and broadband. The findings also lend credence to the view that the degrees of financial freedom of insurance companies (who are unencumbered by regulations) have a bearing on the levels of insurance sales and, hence, promote life insurance access in Africa. The policy imperatives that flow from this study are that African governments must ensure that they (1) institute ICT adoption-friendly policies and (2) regulate the life insurance sector optimally, in order to foster the development of their life insurance sectors.

Olajide (2021) studied the impact of Information and Communication Technology (ICT) on insurance companies' profitability. It is an empirical design study, using responses of structured questionnaire of 152 respondents from 18 insurance companies. It identified the imperatives for adoption of ICT to promoting efficient and efficient service delivery in the insurance industry as a strategy for attainment of the profit maximization objectives of insurance companies in Nigeria. The study concluded that there is a positive relationship between ICT adoption and insurance companies' profitability in Nigeria. This implies that adoption of ICT by insurance companies can enhance their efficiency, their quality of service delivery, and their profitability. The implication of the findings for practice is that insurance companies should endeavor to update their ITC facilities regularly, in view of its impacts on quality of service delivery and profitability.

METHODOLOGY

This research adopted filed survey research design. The targeted population of the study consists of fifty (50) staff professional marketers that are members of the Chartered Insurance Institute of Nigeria (CIIN) from four (4) insurance companies in Kaduna and FCT-Abuja mega cities as presented table 1.

Table 1: Population of the study

S/No	*Name of Insurance Company*	*Population*	*Sample*
	Leadway Assurance Company Limited	36	18
	NEM Insurance Plc	32	16
	Industrial and General Insurance (IGI)	16	8
	Wapic Insurance Plc	16	8
	Total	100	50

Source: Field survey, 2024

Purposive sampling technique was used. This is designed to enable the researchers to know exactly the impact of information communication technology on insurance marketing in post COVID-19 era in Nigeria. There are no criteria required to be a part of this sample. Thus, it becomes incredibly simplified to include elements in this sample. All components of the population are eligible and dependent on the researchers' proximity to get involved in the sample.

Structured questionnaire was the research instrument used. The questionnaire is divided into two sections to enable the researcher obtain information from the respondents. Section (A) provides information on the respondents' personal data. Section (B) shows the research question. The four Likert scale (strongly agreed, agreed, strongly disagreed and disagreed) questionnaires will be adopted by the researcher. The instrument was structured in such a way as to minimize the effect of errors like inconsistency and ambiguity. Crow Bach Alpha was used to test reliability and ANOVA for hypothesis testing.

DATA PRESENTATION AND ANALYSIS

A total of fifty (50) questionnaires were administered to the respondents and all the fifty were successfully retrieved and valid for analysis as shown in this section.

Demographic Analysis

Section A: Demographic Data

Table 2: Gender Distribution of the Respondents

Gender	*Frequency*	*Percentage (%)*
Male	18	36%
Female	32	64%
Total	50	100%

Sources: Field survey, 2024

Table 2 above shows the gender distribution of respondents. 64% majority of the respondents are female as against 36% that are male. We can conclude that the insurance companies marketing staff are female dominated against male.

Table 3: Marital status Distribution of Respondents

Marital status	*Frequency*	*Percentage (%)*
Single	38	76%
Married	12	24%
Total	50	100%

Sources: Field survey, 2024

Table 3 revealed the marital distribution of respondents. From the analysis, 76% majority of the respondents are single s against 24% that are married. Thus the single respondents are the majority in the insurance companies.

Table 4: Age Group Distribution of Respondents

Age Range	*Frequency*	*Percentage (%)*
Below 30 years	12	24%
30-40 years	25	50%
40-50 years	10	20%
Above 50 years	3	6%
Total	50	100%

Sources: Field survey, 2024

From table 4 above it indicates that 50% majority of the respondents are people in the youthful age grade 30-40 years while 12 respondents representing 24% are within the age range of 30 years and below. Only 3% of the respondent is within the age range of 50years and above while 20%respondent is within the age range of 40 and 50years and above.

Table 5: Educational status of Respondents

Educational Status	*Frequency*	*Percentage (%)*
Non formal Education	-	-
Primary School Certificate	-	-
Secondary School Certificate	2	4%
OND/NCE Certificate	8	16%
HND/B.Sc Certificate	36	72%
Others	4	8%
Total	50	100%

Sources: Field survey, 2024

Table 5 above shows the educational status of respondents. From the analysis 72% majority of the respondents had HND/B.Sc certificates, 16%

had OND/NCE certificates, 8% had other certificate like Masters Degree and professional certificates while only 4% had secondary school certificates. Thus, majority of the respondents had knowledge of answering questionnaire.

Table 6: Working Experience of Respondents

Work Experience	*Frequency*	*Percentage (%)*
1-5 years	28	56%
6-10 years	18	36%
11 years and above	4	8%
Total	50	100%

Sources: Field survey, 2024

Table 6 above revealed the working experience of the respondents. From the analysis, 26 respondents representing 56% majority had worked in the insurance companies with range of 1-5 years, closely followed by those who had worked between 6 – 10 years representing 36% while 4 respondents representing 8% had 11 years and above working experience. Thus, all the respondents are familiar with the working environment to answer the questionnaire.

Section B: of what use is Information Communication Technology (ICT) in insurance marketing?

Table 7: Respondents' opinion on what use is information Communication Technology to Insurance Marketing in Post COVID-19 Era in Nigeria

S/No	*Item Statement*	*SA*	*A*	*D*	*SD*
1	ICT enables insurance marketers to deliver quality services to their customers	26 (52%)	14 (28%)	6 (12%)	4 (8%)
2	Use of ICTs in organization has helped to improve insurance organizational management	4 (8%)	13 (26%)	18 (36%)	15 (30%)
3	ICT facilitates timely information processing and distribution	7 (14%)	16 (32%)	9 (18%)	18 (36%)
4	ICT has positive impact on insurance companies marketing	24 (48%)	16 (32%)	8 (16%)	2 (4%)
5	The cost of acquiring ICT in insurance companies outweighs its benefits	9 (18%)	13 (26%)	13 (26%)	15 (30%)
6	There is adequate internal control over operation of ICT in insurance companies	13 (26%)	10 (20%)	17 (34%)	10 (20%)
7	ICT reduces cost of transport for insurance marketers	32 (64%)	12 (24%)	6 (12%)	-
	ICT enhances the speed of insurance companies market service delivery	18 (36%)	8 (16%)	22 (44%)	2 (4%)

Source: Field Survey, 2024

The responses to section B questions, as shown in Table 7, indicated that the majority of the respondents perceived that ICT enhances insurance marketers' operations and performance. Specifically the findings showed that development of ICT promotes good insurance marketers to deliver quality services to their customers, ICT has positive impact on insurance companies marketing, ICT reduces cost of transport for insurance marketers, and ICT enhances the speed of insurance company's market service delivery.

Test of Reliability

Table 8: Reliability Test for Dependent and Independent Variables

Variables	Cronbach's Alpha	No. of Items	Sample
ICTx	0.859	5	50
MKTx	0.795	3	50
Source: SPSS 20.0 Output (2024)			

From Table 8, the Cronbach's alpha ranges from 0.795 to 0.859 for the variables in the questionnaire used for the study, meaning that the instrument was reliable. Hence, the instrument had good reliability as far as internal consistency is concerned. That is, the instrument can give consistent results on ICT and insurance marketing in post-COVID-19 era in Nigeria.

Hypothesis Testing

The formulated hypothesis was tested using ordinary least square regression and a test of Co-integration was used to determine the long run relationship of the variables under study.

Statement of Decision Criteria

Accept H_0 if probability of P-Statistics is > 0.05, meaning not significant.

Reject H_0 if probability of P-Statistics is < 0.05 meaning significant.

Hypothesis One

H_{01}: There is no significant relationship between Information Communication Technology (ICT) and insurance marketing in post COVID-19 era in Nigeri

Table 9: Regression Results of Information Communication Technology (ICT) and insurance marketing in post COVID-19 era in Nigeria

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Waton
1	.745[a]	.644	.628	.6164	2.341
Predictors: (Constant), ICTx; b. Dependent Variable: IMKx					

Source: SPSS 20.0 Output (2024)

Table 10:ANOVA results of Information Communication Technology (ICT) and insurance marketing in post COVID-19 era in Nigeria

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	26.221	3	12.439	41.112	.000[b]
	Residual	37.233	47	.314		
	Total	63.454	50			
Source: SPSS 20.0 Output (2024) a. Dependent Variable: IMKx; b. Predictors: (Constant), ICTx						

Table 11: Coefficient results of Information Communication Technology (ICT) and insurance marketing in post COVID-19 era in Nigeria

Coefficients[a]						
Model		*Unstandardized Coefficients*		*Standardized Coefficients*	*T*	*Sig.*
		B	*Std. Error*	*Beta*		
1	(Constant)	.748	.314		4.012	.003
	ICTx	.179	.088	.248	1.844	.032
Dependent Variable: IMKx *Source:* SPSS 20.0 Output (2024)						

The results in table 9-11 revealed a positive statistically significant coefficient value of 74.8% in information and communication technology (ICT). Also, from the results, the estimation reveals that the explained variation is good meaning that the independent variable significantly explained dependent variable by 62.8%. The remaining 37.2% was not explained by explanatory variables. The probability of F-statistic is 0.000 and there is no autocorrelation because the Durlin-Watson statistics (2.341) falls within the acceptable region (1.5-2.4). Based on the decision criteria, overall results of the analysis show

ICTx P-values of 0.032 which is less than 0.05, meaning that H_0 is rejected. Also, ANOVA p-value of 0.000<0.05 presented goodness of fit of the model in making future forecast on information and communication technology and insurance marketing in post COVID-19 era in Nigeria. This means there is statistical significant relationship between information and communication technology and insurance marketing in post COVID-19 era in Nigeria.

Discussion of Findings

The responses of respondents on identified usefulness of Information Communication Technology (ICT) in insurance marketing, item 1 on Table 7 shows that 78% agreed with the statement. This means that there is significant relationship between Information Communication Technology (ICT) and insurance marketing in Nigeria and the null hypothesis (H_o) is rejected. The results are consistent with Qemali, Albania, & Madani, (2015) whose results of estimation by fixed effects panel and GMM method indicated that the effect of the number of mobile users (per hundred people) as an ICT index on insurance and financial services (% of commercial service exports) as an insurance industry index is positive and significant. In the other word, with the improvement and development of information and communication technology, the insurance industry is also faced with the development and prosperity and vice versa in the absence of information and communication technology boom.

CONCLUSION AND RECOMMENDATIONS

Based on the results of the findings ICT facilitates timely information processing and distribution hence its usage positively and significantly impacts the speed of operations and service delivery, productivity and profit level of the insurance companies in Nigeria, Despite the challenges of lack of skillful ICT marketing personnel and effective channel of distribution faced by insurance marketers in Nigeria. In general perspective, using ICT in insurance marketing provides customers access to insurance services by using safe intermediates and without physical presents. The application of information technology in insurance marketing has redesign business process in order to provide optimal insurance services and facilitating interaction between people and insurance industry.

The following recommendations are made:

1. For maximum benefits from ICTs, the government, regulators and other stakeholders in the insurance sector must synergize to eliminate the challenges digital insurance marketing, as this will encourage

investment in ICTs thereby ensuring the effectiveness of the insurance sector in Nigeria providing sustainably financial guarantees to the insuring public. Undoubtedly, this will bring about the emergence of a strong insurance sector, which will contribute meaningfully to economic growth of Nigeria.

2. The National Assembly should enact potent laws inculcating digital insurance to reduce the cost of insurance apathy aimed at promoting, and restoring trust and confidence in the insurance business in Nigeria.
3. The stakeholders and management of the insurance companies must as a matter urgency their personnel towards adopting recent development in ICT in marketing research and product development.

References

Arumugam, S. & Bhargavi, R. (2019). A survey on driving behaviour analysis in usage based insurance using big data. *Journal of Big Data*, *6*(1), 1-21.

Braunwarth, K. S., Kaiser, M. & Müller, A. L. (2010). Economic evaluation and optimization of the degree of automation in insurance processes. *Business & Information Systems Engineering*, *2*(1), 29-39.

Britannica Encyclopaedia (2009). *http://www.britannica.com/ebchecked/topic/217591/fraud.* Financial System Strategy, 2020. fromhttps://www.cbn.gov.ng/fss/mon/Nigeria%27s%20Financial%20System%20Strategy%202020%20Plan%20-%20OUR%20DREAM_Prof.%20Soludo.pdf

Center for Disease Control, USA. (2020). Recommendation Regarding the Use of Cloth Face Coverings, Especially in Areas of Significant Community-Based Transmission. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html

Njoh, A. J. (2018). The relationship between modern information and communications technologies (ICTs) and development in Africa. *Utilities Policy*, *50*, 83-90.

Nwala, M. N., Abubakar, I. A. & Onibiyo, E. R. (2020). Effect of Investment in Information and Communication Technology on Financial Performance of Listed Insurance Companies in Nigeria. *Journal of Economics and Allied Research*, 4(3), 125– 138.

Obadha, M., Colbourn, T., & Seal, A. (2020). Mobile money use and social health insurance enrolment among rural dwellers outside the formal employment sector: Evidence from Kenya. *The International Journal of Health Planning and Management*, *35*(1), e66-e80.

Obaremi, N. (2007). Nigeria insurance special report: Big is beautiful. *African Business*, *4*, 51-62.

Okonkwo, I. V. & Okechukwu, S. T. (2021). Insurance Business and Information Communication Technology in Nigeria: Matters Arising. Governance and professionalism in the 21st Century Accountants blueprint. *A Festschrift for Rev Canon Professor Benjamin ChukaOsisioma.* Faculty of Management Sciences, Nnamdi Azikiwe University Awka.

Olajide S. F, (2021) Information and Communication Technology (ICT) and Insurance Companies Profitability in Nigeria

Osabuohien, J. (2008), Regulation in microinsurance markets: principles, practice and directions for future development (Working papers on risk management and insurance No. 127).

Piljan, T., Piljan I., & Cogoljević, D. (2017). *Application of information and communication technologies and the Internet in the distribution of insurance services, International Journal of Bank Marketing*.No. 6, p. 367-373, Belgrade: Vojno delo.

Ray, B., (2009). Burnham's Insurance Dictionary. Ray Burnham Southbridge, MA. USA.

Riikkinen, M., Saarijärvi, H., Sarlin, P. & Lähteenmäki, I. (2018). Using artificial intelligence to create value in insurance. *International Journal of Bank Marketing*, 2(1), 81-102

Riikkinen, M., Saarijärvi, H., Sarlin, P.& Lähteenmäki, I. (2018). Using artificial intelligence to create value in insurance. *International Journal of Bank Marketing*.

Rokas, I. (2016). European and International Online Distribution of Insurance Products. In *The "Dematerialized" Insurance*, Springer, Cham.

Sajuyigbe, A. S. & Alabi, E., (2012). Impact of information and Communication Technology inselected Small and Medium Enterprises in Osogbo metropolis, Nigeria. *Journal of School of Communication and Information Technology, Federal Polytechnic, Offa 3*(1), 183 -188.

Sibindi, Athenia Bongani. (2022). Information and Communication Technology Adoption and Life Insurance Market Development: Evidence from Sub-Saharan Africa. *Journal of Risk and Financial Management* 55-68.

Ward, D., & Zurbruegg, R. (2000). Law, politics and life insurance consumption in Asia. *The Geneva Papers on Risk and Insurance - Issues and Practice*, *27*(3), 395-412.

Whong, F. M., & Zakari, M. (2014). Application of Information and Communication Technologies (ICTs) to Library Operations and Routines in Selected Nigerian Federal University Libraries. *Information Manager (The)*, *14*(1-2), 29-37.

Wikipedia. (2020). COVID-19 Pandemic. https://www.en.wikipedia.org/wiki/COVID-19_pandemic

World Finance. (2020). How Digital Technology is Helping Nigerians Access Better Banking Solutions. https://www.worldfinance.com/banking/how-digital-technology-is-helping-nigerians-access-better-banking-solutions