KNOWLEDGE, ATTITUDE AND PERCEPTION OF ARTIFICIAL INTELLIGENCE AND ITS APPLICATION IN THE KEY OPERATIONS OF INSURANCE IN NIGERIA

ALLI, Noah Gbenga, GANIYU, Kamal and AINA, John
Department of Insurance, The Federal Polytechnic, Offa.
Kwara State, Nigeria.
noah.alli@fedpoffaonline.edu.ng

Abstract

As the influence and use of artificial intelligence grows and its transformative potential in financial services becomes more apparent, many questions have been raised regarding its application in the key operations of insurance companies. The Nigerian insurance industry opinion like others as well plays an important role in these discussions, influencing its adoption and commercial development. This research work was aimed at examining how knowledgeable the Nigerian insurance industry is, their attitude and perception towards artificial intelligence, as well as to investigate if the application of artificial intelligence will have a significant improvement on insurance claims provision, marketing of insurance services, customer service delivery and insurance underwriting within the industry. A questionnaire adapted from a previous study was used for the eliciting of information from respondents. The population of the study consisted of all the insurance companies in the Nigerian insurance industry, and a total of 60 employees were purposely selected from the 60 companies for the study. Inferential and descriptive statistics were also adopted to present the data collected and chi-square was used to test the formulated hypothesis. The study shows that the insurance companies in the Nigerian insurance industry are knowledgeable on the issue of artificial intelligence, have a positive attitude towards artificial intelligence, and also perceive artificial intelligence positively as an innovation that stands to improve the key operations of insurance companies. The study further concluded that the application of artificial intelligence has a significant improvement on the marketing, underwriting, claims, and service delivery of insurance companies within the Nigerian insurance industry.

Keywords: *Artificial Intelligence, Insurance, Marketing, Claims, Underwriting, Customer Service.*

Introduction

Artificial intelligence (A.I) and its limitless application in the modern-day 21st century has been extensively discussed as an antecedent of banking, insurability of risk, healthcare service delivery, engineering, business literature (Martin, David & Julian, 2021; Gergo & Gergely, 2021; Yue & Limao, 2021; DonHee & Seong, 2021; Kun-Hsing, Andrew & Isaac, 2018; Jakši and Marin 2019). A.I. manifests itself as an intelligent attitude and commitment by machines, computers, or robots used to aid people and corporations. In the case of services, A.I. chiefly refers to digital and robot services provided to consumers to help them with their purchasing and utilization journeys (Gursoy, 2018; Lu, Cai, &Gursoy, 2019). According to the previous investigation from various authors, the insurance sector is languishing behind in the global and inter-sectorial artificial intelligence revolutions (Rangwala et al. 2020; Deloitte 2017). Notwithstanding, artificial intelligence will likely have a broad impact on insurance's numerous value chains, ranging from

insurance services marketing, customer service, insurance claims processing, and insurance risk underwriting. Consequently, insurance professionals in the Nigerian insurance industry must understand the new technologies that will contribute to this transformation and how artificial intelligence as a critical element can help their insurance organizations create more innovative insurance products, collect valued perceptions from new data sources, simplify insurance business procedures and improve their customer service (Martin, David & Julian, 2021). Ultimately, this research work aims to inform insurance professionals within the Nigerian insurance industry to understand the prospective benefits of artificial intelligence applications to various insurance operations. Therefore, the following research objectives and hypotheses were formulated to guide this study further:

Research Objectives

- To examine the knowledge, attitude and perception of the Nigerian insurance companies to artificial intelligence.
- To examine artificial intelligence application significant improvement on customer service delivery
- To investigate artificial intelligence application significant improvement on insurance claims processing
- To determine artificial intelligence application significant improvement on insurance risk underwriting
- To find out artificial intelligence application significant improvement on insurance services marketing

Statement of Hypothesis

h_1**:** Application of artificial intelligence has no significant improvement on customer service delivery

h_2**:** Application of artificial intelligence has no significant improvement on insurance claims processing

h_3**:** Application of artificial intelligence has no significant improvement on insurance risk underwriting

h_4**:** Application of artificial intelligence has no significant improvement on insurance services marketing

Literature Review

Artificial Intelligence

A.I. includes all intelligent machines in diverse and unsafe environments (computer systems) that are capable of learning, adjusting, and performing without external intervention (Miailhe, 2018). To do that, intelligent systems use sophisticated algorithms to learn and continuously adjust and improve their forecasts with every additional data file (Hehner *et al.*, 2017). Moreover, machines imitate the cognitive functions of human minds, like learning, perception, problem-solving, and reasoning (Balasubramanian, Libarikian, and Mcelhaney, 2018). The result would, according to

OECD 2020, be to display goods, social media postings, and search engine results, which would demand integrity of the information, but may not result in issues of an ethical nature or their criticism when A.I. or machine learning are applied for business purposes, for example online retail and recommendation systems. When action by A.I. takes a significant place, such as investment decisions, diagnostic health decisions, or significant safety decisions of a self-supporting vehicle, then the judgment process of an algorithm becomes crucial (PwC, 2018). Algorithms can even push undesirable pictures and product lines with recommending platforms and push harmful social conditions (OECD, 2020).

Artificial intelligence is delineated by Priti (2021) as an experiment that simulates these natural intelligence characteristics to make machines intelligent. According to this study, a machine is regarded as an intelligent one when it can show its attributes, including flexible decision-making and problem-solving, capacity to spot the relative relevance of things, ability to discern among things that look like things, and vice versa. A machine can only be made intelligent in a selected narrow domain, as against natural intelligence. Of a more generic nature, natural intelligence has a high degree of flexibility, and such great intelligence or general intelligence cannot be transmitted to machines. "The study of how computers do things that are better for the time being" is Artificial intelligence as defined by (Elaine Rich et al, 2008). A.I. was defined by McCarthy (2020) as 'the science and engineering of intelligent machinery, in particular intelligent computer programs. According to McKinsey (2017) the broad idea of Artificial Intelligence, is when a machine can manage and perform certain functions smartly, efficiently and quickly. Machine learning is also connected to artificial intelligence, as it believes human beings can incorporate data into the computer in order for the machine to learn for itself (Nedelkoska and Quintini, 2018). Deep Learning is a machine learning field, in which algorithms try to represent high level abstraction in data. The vast branch of computer science is artificial intelligence. The objective of A.I. is to develop a smart and autonomous system that is independent of intervention as witnessed in the case of blockchain (Alli, Ganiyu, and Aina, 2020).

Insurance Operations

According to Denenberg, Eilers, Melone and Zelten (1974), insurance is a commercial intermediation process because the production cycle is a way of allocating risks between all the participants of a particular group. Obviously, the way an insurance segment operates within a competence, is to a large extent dependent on the public's cultural and political desires. Since insurance offers a vital protective barrier, the industry has long been known to be channeled in order to guarantee that the assets required for the disbursement of claims are available when required (Yusuf, Ajemunigbohun & Alli, 2017). The matter becomes more critical when it comes to a Life's coverage as a source of continued existence depending on insurance. Investments in reserve in all categories of financial and real estate assets exemplify the contribution of the insurance sector to the economy. Another major source of income for insurance companies is the return on these investments (Michelbacher and Roos, 1970). Insurance companies can upturn their asset size through the reinvestment of some or all of the establishment's incomes each year.

Relationship between insurance company's units or sections

Marketing and Underwriting: When business capacity increases, the principles that govern

insurance business gain credibility. The sales function is therefore obviously important. However, sales volume per se in insurance line ensures profit and does not necessarily reflect the goals of the insurer's underwriting department (Ajemunigbohun, Oreshile and Alli, 2018; Denenberg *et. al.*, 1974). Because sales intermediaries or representatives tend to ignore the corporate underwriting policy and its obligation to implement this policy, subscribers are often critical to the marketing department. If, however, the underwriting department accepts and classifies the risks too restrictively, the company is losing its competence

Underwriting and Claims: The appraiser may see defects during the claim adjustment period that need to be immediately addressed so as to reduce the likelihood of loss. An adjuster can also identify moral or moral hazards such as illegal or dangerous property use, poor household management. Following a loss and closer investigation, the underwriting department may also ask whether coverage should be continued or not. But what was called "claims underwriting" often harms an insurance company's reputation (Yusuf, Ajemunigbohun & Alli, 2017).

Marketing and Claims Departments: In the words of Yusuf, Ajemunigbohun & Alli (2017), all these divisions are actively involved with the general populace and are primarily responsible for the company's credibility or image. In both situations, it is the producer who is the intermediary between the policyholder and the company when paying the premium and claiming reimbursement for a loss, he has to deal with two different departments ((Ajemunigbohun, Oreshile and Alli, 2018).

Artificial Intelligence in Insurance Operations

Artificial intelligence in insurance, according to Nedelkoska and Quintini (2018) provides for the improvement of the claims procedure by means of the technology used for claim reporting, damage recovery, auditing of the system, and lastly communicating with the client (Ramnath, Ari and Doug, 2021; Geneva Association, 2018; OECD, 2017). Machine learning also helps insurers to make greater use of artificial technology by reducing their processing time significantly and by engaging in fraudulent acts. In claims and underwriting, automated procedures and enhanced coherence and efficiency have been witnessed, thereby prompting several insurance firms to adopt this. It continually evolves to virtual assistants on the client front for the purpose of intelligent back-office automation (Priti, 2021; Ramnath, Ari and Doug, 2021). Through Artificial intelligence usage, touch screen and voice command technology is growing smarter and easier to use, and interacting becomes easier and more natural. More and more insurers are utilizing smart part virtual support from high-tech enterprises to well-established organizations to offer clients quick tailored support (OECD, 2017).

Artificial Intelligence and Insurance Claims Management

In the opinion of Yusuf, Ajemunigbohun and Alli (2017), Claims processing and management are among the most crucial and engaged areas of insurance since so many insurers could significantly enhance their business model by revamping the claims process. The processing of claims covers all stages of claims from the initial contact until the case closes, including triaging claims, review, fraud investigation, if required adjustment, and finally, acceptance or dismissal of claims. The

automation and acceleration of claims could be used with A.I. New Ai applications such as chatbots, such as the Watson Assistant, which can surely enhance how a customer interacts with the insurance firm. For example, when integrated with the visual categorization of the A.I. image and machine learning for the cost and impact of the claim, a decision may be made with complete automatic A.I. so that claims are reimbursed for hours or days instead of weeks. Artificial intelligence enhances the detection of frivolous claims (Eling and Lehmann 2018; Gruhn 2018). For example, insurers can use image recognition and unorthodox methods to reliably track insurance fraud, including information from external databases (Gruhn 2018). In addition, automated claims assessment processes may include the behavioral information of insured persons and individuals within their networks or external parties affected by the damage reported or may confront the claims in the past and consider fraudulent patterns (Ravi and Kamaruddin 2017).

According to Sam, Becky, and Mark (2019), this type of system for claims acceleration will most likely only work for low-impact claims. However, the outcome of using A.I. to manage these claims categories could result in more manual and process-driven sophisticated claims being bolstered with some of the Artificial intelligence used in the automated system, or maybe just the influence of mechanizing the claims process.

Artificial Intelligence and Insurance Risk Underwriting

Dorfman (1998) clarified that underwriting is the task of examining and identifying the risks covered by an insurer and allocating them an expected cost and risk level. An insurance company will assess the risk of a potential policyholder based on certain actuarial factors. The objective of this underwriting process is to give insurance prices based on their risk. For insurance companies, underwriting activities are essential. First, it is the evaluation of the assets or the individuals (Ramnath, Ari and Doug, 2021). Then, the company will decide based on that assessment whether or not to insure the person's assets based on risk analysis. Bernardo (2021) said there are two primary components of underwriting activities: risk evaluation and costing. The insurance companies evaluate and determine the risks of current and developing actuarial models. Companies now have access to a lot more customer information. This opportunity allows for a more accurate forecast of the probability of claims. Companies typically collect supporting documents at the time of signing, depending on these documents alone does not permit a clear and detailed risk policy.

Data can be collected through various channels (Berno, 2021; Kostelník, Pisarovic, Muron, Darena, & Procházka, 2019) through digitization. According to Reilly (2016), insurance firms spend on artificial intelligence, such as machine learning. A.I can make sense of massive amounts of data collected in real-time via IoT, sensors, and online platforms. Bernado (2021) agreed that it enables companies to make more precise risk assessments and pricing decisions. Artificial intelligence tools can automate and accelerate underwriting, and machine learning allows them to improve almost instantaneously over time. A digital underwriter, for example, can determine whether a more in-depth analysis is required for the proposed insurance or whether a policy should be issued automatically. The combination of A.I. and safety checks provides the insurance company with richer data. So not only could the surveyor benefit from the report, it could help the inspector make informed underwriting choices and ultimately help the customer to manage the risks (Sam, Becky, and Mark, 2019).

Artificial Intelligence and Marketing of Insurance

Marketing is an active tool for insurance firms that want to increase their reach and ensure better acquisitions of customers. Therefore, insurers must build on the essential marketing strategy, far beyond the conventional cold calling method, as a critical component of the competitive market. According to Zekaj (2016), insurance marketing has a critical role in fulfilling the demand and the supply because the insurance products are impassable and only exist as promises. Therefore, the buyer of the services will realize that if an accident occurs to sell a promise, it requires confidence. Increased sales strength, lower compute cost, the accessibility of big data, and advances in machine learning algorithms and models are currently increasing the significance of Artificial Intelligence (Ming-Hui & Roland, 2020). An agent can access the entire customer profile and prospects in the insurance sector through the A.I. These data can be further analyzed to give you a mature insight, accurate predictions about customer preferences, and the exact products or offers to add. Sales and marketing from "discovering consumers for product lines" to "helping to create customers will soon see development in this area.

Artificial Intelligence and Customer Services

Consumers are the key elements of an entire organization, according to Bernado (2021). They are certain types of people or firms to whom goods or services are offered. The consumer is the one who is ready to pay for the services and products of the organization. Therefore, what types of products and services can be developed and delivered in a business life cycle is essential.

Artificial Intelligence (A.I.) can revolutionize the interaction between a company and its consumers (McLean & Osei-Frimpong, 2019). Insurance managers, therefore, need to know the new technologies to make a significant contribution to this change and how artificial intelligence can assist organizations in developing cutting edge products, collect valuable insights from alternative sources, optimize processes and improve service quality (Martin, David & Julian, 2021). The first is that the manner insurers communicate with clients (e.g., sales and customer service) is evolving. While customer care has traditionally required direct engagement with an agent, broker, or bank for consumer complaints and product features due to a lack of alternative methods, the information available has improved considerably over the internet or via chatbots. Some items can even be ordered online through chatbots with no human interaction. As chatbots start taking over some of their responsibilities, insurance companies will deploy human sales and customer service agents more effectively. As a result, the Policyholders benefit from the accessibility and higher speed of customer service and product information (Martin, David & Julian, 2021). Companies should continually develop and transform knowledge for sustained competitive advantage (Kogut and Zander 1992). In the era of service-dominant logic, customer support awareness and creativity have become an essential source of competitive advantage (Gidhagen et al., 2011). Advances in robotics and A.I. organizations constantly strive to give customers new service value. While conventional customer service is a sequence of activities and interrelations among humans (employees and customers) (Ray et al., 2005; Setia et al., 2013), service in the service robot environment involves blended communication between humans and robots. Consumers place different weights on various aspects of service quality. Some customers, for example, value speed and accuracy in services, whereas others value friendliness and personal attention. With the introduction of service robots, customers' aspirations for both the type and

quality of services change (Edvardsson et al. 2018; Lee and Lee 2019). As a result, both the technical capability of the intelligent machines and the consumer's aspirations influence the quality of service provided by intelligent machines and their significance to the consumer. Therefore, before deploying intelligent machines for services, organizations need to recognize what consumers want and expect regarding service quality provided by intelligent machines. As a result, it can boost business profitability by providing faster and more efficient customer service, resulting in higher customer contentment and commitment.

Methodology

Survey research design was adopted for the purpose of this study to know the opinion of the Nigerian insurance industry on the knowledge, their attitude, their perception and the application of artificial intelligence on the operations of insurance companies within the industry. The study was conducted among insurance firms resident in Lagos metropolis. The choice of selecting the insurance firms in Lagos was because the majority of the research interests were based there. The study involved different categories of insurance companies' employees, especially those currently serving or have experience in the claims, marketing, customer service and underwriting department. Therefore, a convenience sampling method was adopted to select samples for the study in the industry. Data for this study were gathered through a well-structured questionnaire which was adapted from the study of Patrick *et. al.*, (2021). The questionnaire consisted of three (3) sections. The first section was made up of the demographic profile of the respondents, second section measured knowledge and attitude to artificial intelligence and the third section measured the perception of artificial intelligence in underwriting, claims services, marketing and customer service of the insurance industry. The questionnaire was pre-tested to standardize it before administering it on the insurance companies' employees within the industry and exceeded the minimum requirement of α=0.70 with a score of α=0.82. For the purpose of analyzing the data, descriptive statistics, inferential statistics and chi-square were adopted.

PART A: DATA PRESENTATION RELATING TO THE DEMOGRAPHIC DETAILS OF THE RESPONDENTS

Table 1 Demographics of the respondents

Demographics of sample	Numbers of observations	Percentage (%)	Mean ± SD
GENDER			0.30±0.462
Male	42	70.0	
Female	18	30.0	
AGE			2.85±0.917
21-30	6	10.0	
31-40	12	20.0	
41-50	27	45.0	
Above 50	15	25.0	
EDUCATIONAL			2.38±0.555
ND/NCE	2	3.3	
HND/BSC	33	55.0	
MBA/MSC	25	41.7	
INCOME			3.52±0.4854
< 100, 000	2	3.3	
101, 000 - 200, 000	8	13.3	
201, 000 - 300, 000	7	11.7	
ABOVE 300, 000	43	71.7	
WORK EXPERIENCE			1.53±0.650
< 10 YRS	33	55.0	
11 - 20YRS	22	36.7	
21 - 30YRS	5	8.3	
DEPARTMENT			2.68±0.983
Claims	8	13.0	
Marketing	17	28.0	
Underwriting	21	35.0	
Customer Service	10	17.0	
Information Technology	4	7.0	

Source: Authors computation, 2021

PART B: DATA PRESENTATION RELATING TO THE KNOWLEDGE AND ATTITUDE TO ARTIFICIAL INTELLIGENCE

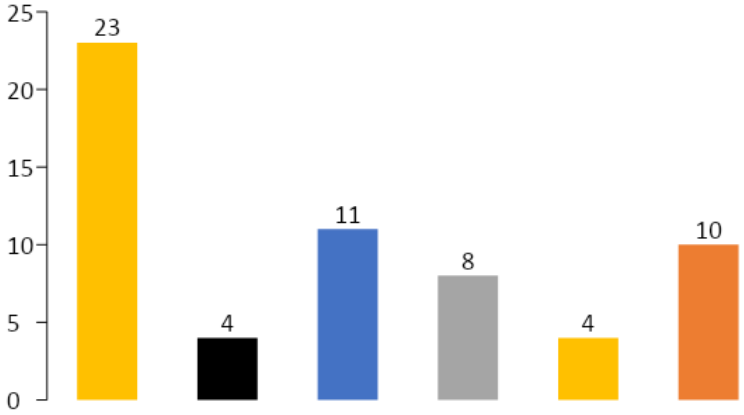


Fig. 1: What Feeling Comes to Mind When You Hear Artificial Intelligence?

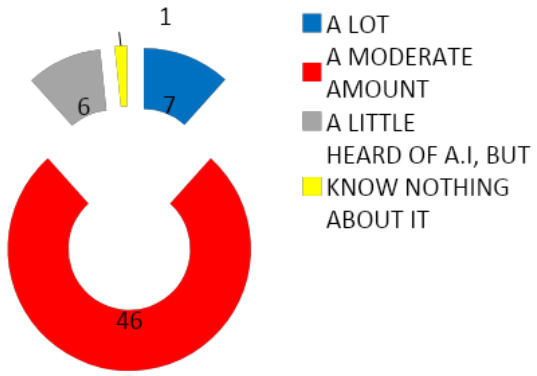


Fig. 2: How much do you know about artificial intelligence?

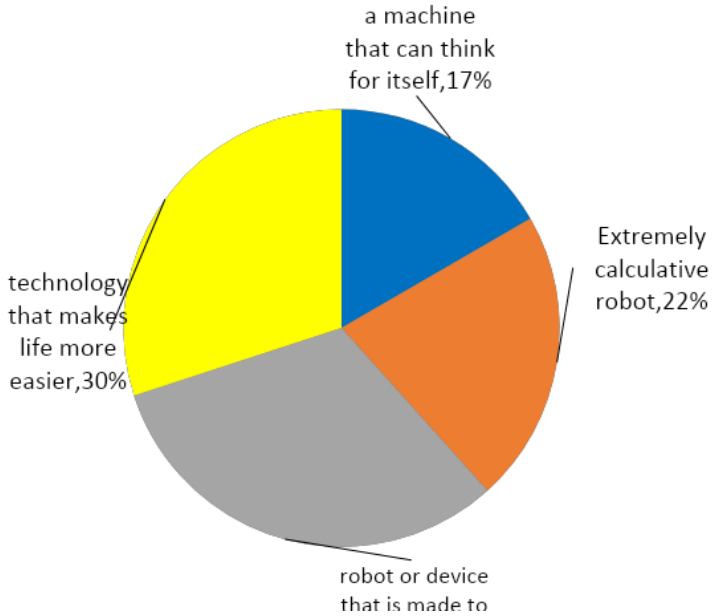


Fig. 3: In your own words, please describe A.I

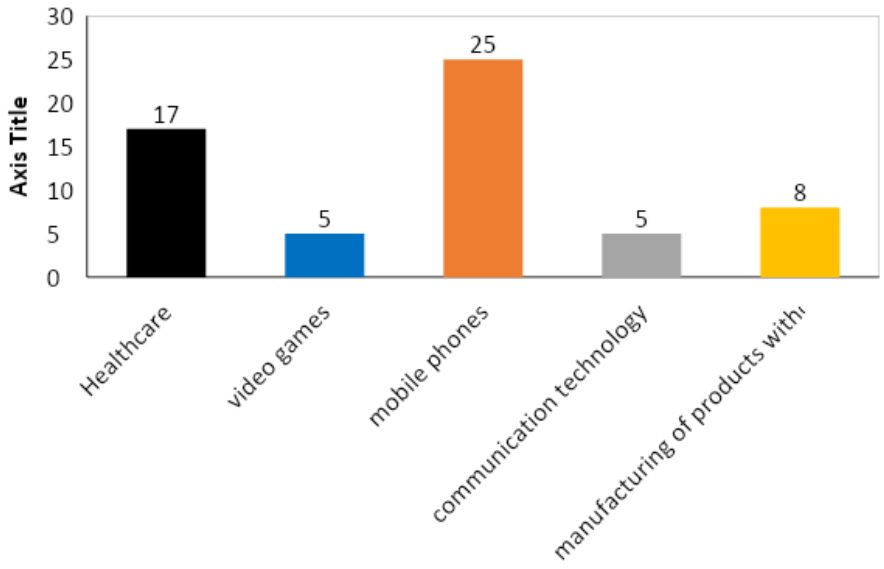


Fig. 4: Examples of how A.I is used today

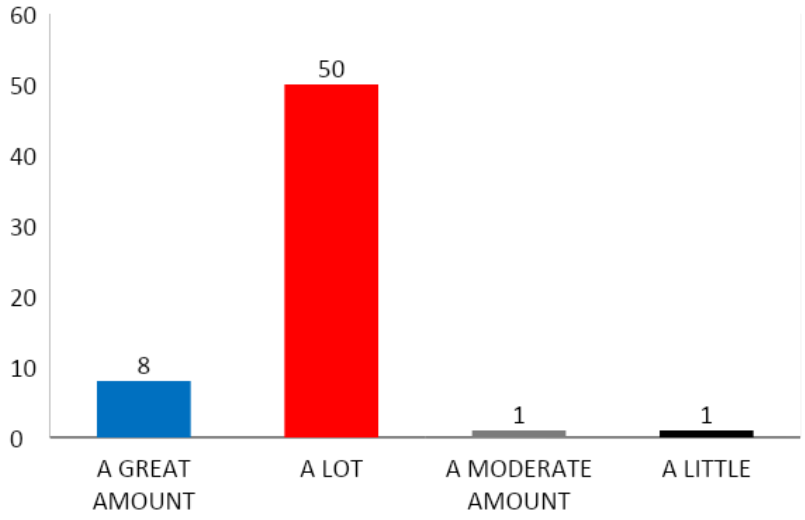


Fig. 5: In the past 12 months, how much have you heard about A.I?

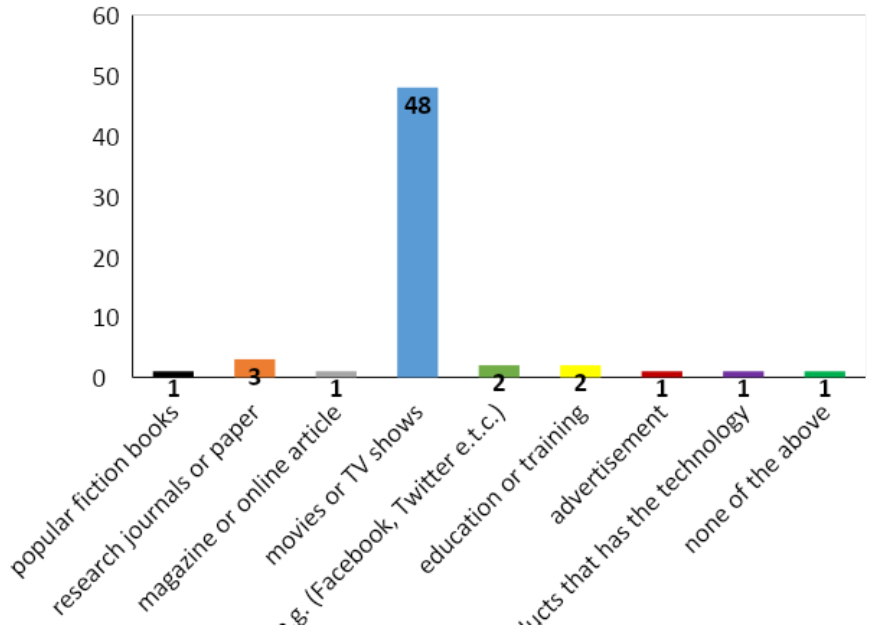


Fig. 6: In the past 12 months, where have you learned about A.I?

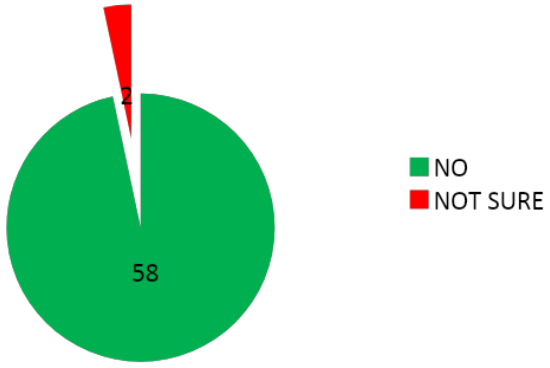


Fig. 7: Have you ever had an experience with A.I related technology that made you feel uncomfortable?

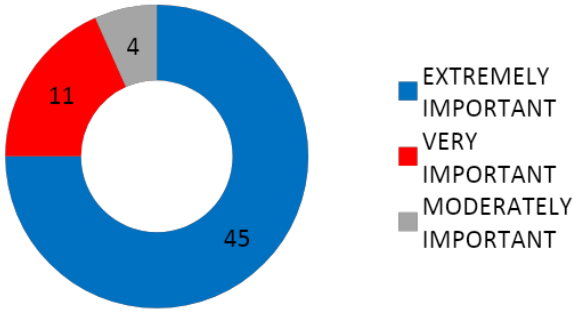


Fig. 8: How important is it for insurance companies to follow a responsible process to develop procedures that uses A.I?

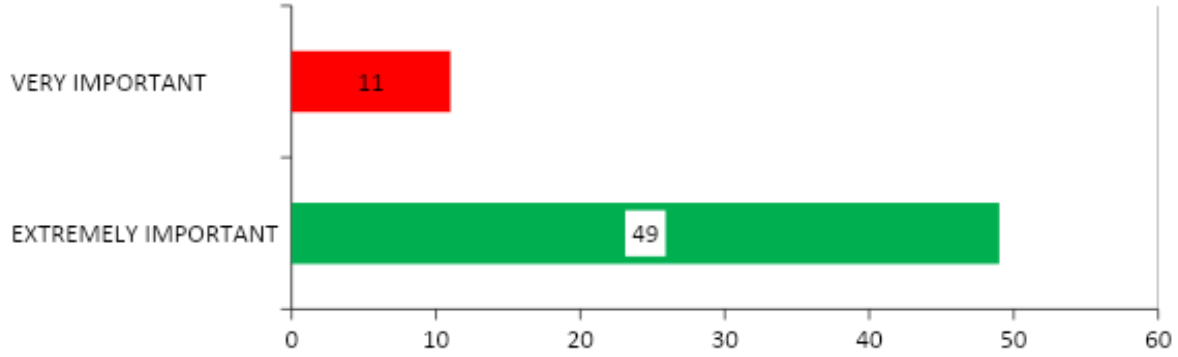


Fig. 9: How Important Is It For Insurance Companies To Carefully Weigh The Pros And Cons Before Releasing New Technology?

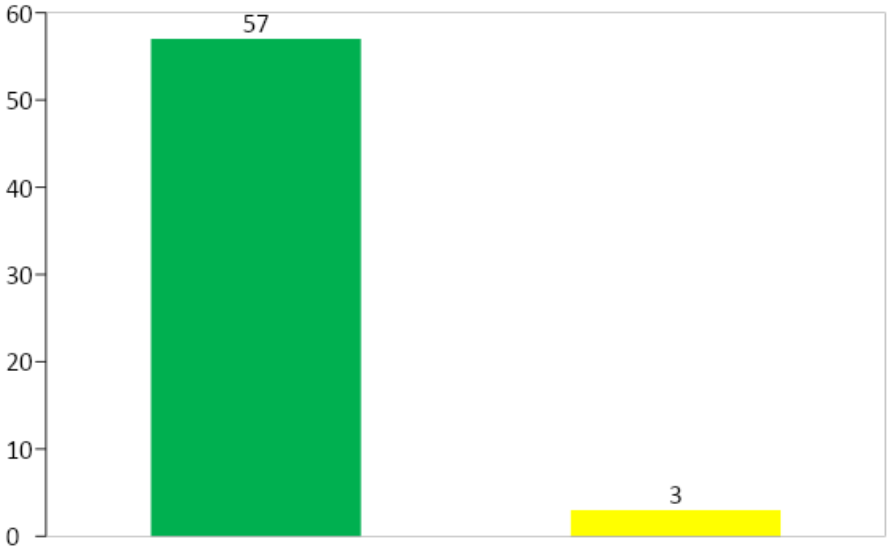


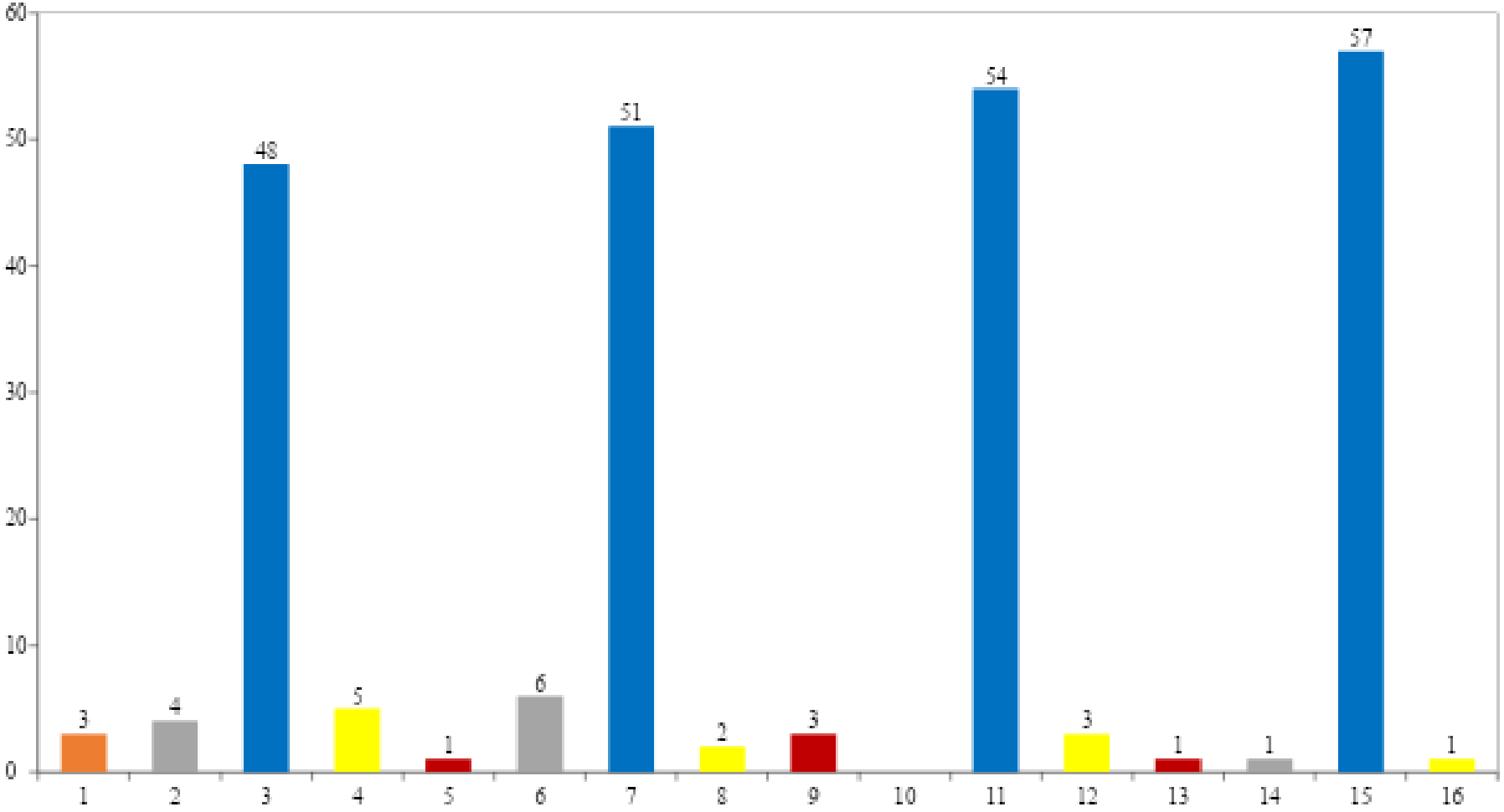
Fig. 10: **Overall, in the long term, the application of A.I will be?**

Respondents (n = 46, 76.7%) stated that they know a moderate amount about artificial intelligence while (n=7, 11.7%) stated that they know a lot about artificial intelligence, and (n=6, 10%) claimed they know a little about artificial intelligence and (n=1, 1.7%) claimed they have heard of artificial intelligence but know nothing about it (see fig. 2). Furthermore, (n=50, 83.3%) stated that they have heard a lot about artificial intelligence in the past 12 months, while (n=8, 13.3%) said they have heard a great amount about artificial intelligence and (n=1, 1.7%) said they know a moderate and little amount about artificial intelligence (see fig. 5). Although, (n=48, 80%) stated that in the past 12 month, they learned about artificial intelligence through movies or TV shows, while (n=3, 5%) said through research journals, and (n=2, 3.3%) stated that they heard about artificial intelligence through Social media and also through education or training respectively, while (n=1, 1.7%) stated that they hear about artificial intelligence through popular fiction books, though magazine or online articles, through advertisement, through the usage of product that has the

artificial intelligence technology respectively, and (n=1, 1.7%) stated that they have heard of artificial intelligence through none of the above (see fig. 6).

When asked about the feelings that come to mind when they hear about artificial intelligence, (n=23, 38.3%) claimed they are amazed when artificial intelligence comes to mind, while (n=11, 18.3%) said they are excited when artificial intelligence comes to mind. Also, (n=10, 16.7%) said they are always intrigued when artificial intelligence comes to mind, while (n=8, 13.3%) claimed they are unsure of the feeling when artificial intelligence comes to mind and (n=4, 6.7%) stated that fear and anger comes to mind respectively (see fig. 1). The respondents' were able to state some of the examples of how artificial intelligence is being used today. (n=17, 28.3%) claimed that artificial intelligence is being used in the field of Healthcare, while (n=25, 41.7%) stated that artificial intelligence is now being used in mobile phones. Also, (n=8, 13.3%) states that artificial intelligence is now being used for the manufacturing of products without the human intervention and (n=5, 8.3%) said that video games and other communication technology are examples of areas which artificial intelligence are now been used in recent times (see fig. 4). Also, (n=58, 96.7%) claimed that they have never had an experience with artificial intelligence related technology that made them feel uncomfortable while (n=2, 3.3%) said they are not sure if they have had an experience with artificial intelligence related technology that made them feel uncomfortable (see fig. 7). (n=45, 75%) said it is extremely important for insurance companies to follow a responsible process to develop procedures that uses artificial intelligence while (n=11, 18.3%) claimed it is very important and (n=4, 6.7%) said it is moderately important (see fig. 8). Also, (n=49, 81.7%) said it is extremely important for insurance companies to carefully weigh the pros and cons before releasing new technology (artificial intelligence) while (n=11, 18.3%) claimed it is very important (see fig. 9). Lastly, (n=57, 95%) said overall, in the long term, the application of artificial intelligence will be mostly good for the insurance companies in Nigeria, while (n=3, 5%) claimed the application of artificial intelligence will be mostly good and bad roughly in every amount (see fig. 10). Respondents were asked to describe artificial intelligence in their own words, and (n=18, 30%) described A.I as a kind of technology that makes life more easier, while (n=13, 22%) described A.I as an extremely calculative robot. Also, (n=10, 16%) described it as a machine that can think for itself and (n=19, 32%) stated that A.I is a robot that is made to be able to perform tasks as good as humans, if not better than humans (see fig. 3).

Part C: Data presentation relating to the perception of artificial intelligence in claims, underwriting, marketing and customer service



Source: Researchers computation, 2021

Test of Hypothesis

Chi Square Test Statistics

	Artificial Intelligence improves Marketing of Insurance	Artificial Intelligence improves Customer Services	Artificial Intelligence improves Insurance Claims Services	Artificial Intelligence improves Underwriting In Insurance
Chi-Square	48.600[a]	135.333[b]	102.700[c]	76.900[c]
Df	1	3	2	2
Asymp. Sig.	.000	.000	.000	.000

Source: Authors computation, 2021

From the above chi square test statistics, the reliability for "Artificial Intelligence and Marketing of Insurance" is 48.600 with degree of freedom 1 is greater than the tabulated value of 3.841 at 95% significant level. Therefore, since the calculated chi-square is greater than the table value, we reject Ho that the application of A.I has no significant Improvement on the marketing of insurance. Also, the reliability for Artificial Intelligence and Customer Services is 135.333 with degree of freedom 3 is greater than the tabulated value of 7.815 at 95% significant level. Therefore, since the calculated chi-square is greater than the table value, we reject Ho that the application of A.I has no significant Improvement on the customer service delivery of insurance firms in Nigeria. Furthermore, the reliability for Artificial Intelligence and Customer Services is 102.700 with degree of freedom 2 is greater than the tabulated value of 5.991 at 95% significant level. Therefore, since the calculated chi-square is greater than the table value, we reject Ho that the application of A.I has no significant Improvement on the insurance claims delivery of insurance firms in Nigeria. Lastly, the reliability for Artificial Intelligence and Customer Services is 76.900 with degree of freedom 2 is greater than the tabulated value of 5.991 at 95% significant level. Therefore, since the calculated chi-square is greater than the table value, we reject Ho that the application of A.I has no significant Improvement on the underwriting of risks among insurance firms in Nigeria.

Conclusion

In this study, the research aimed at examining how knowledgeable the Nigerian insurance industry is, their attitude and perception towards artificial intelligence, as well as to investigate if the application of artificial intelligence will have a significant influence on insurance claims provision, marketing of insurance services, customer service delivery and insurance underwriting. The study concluded that the insurance companies within the Nigerian insurance industry are knowledgeable on the issue of artificial intelligence, and also, they have a positive attitude towards the artificial intelligence and lastly perceive artificial intelligence positively as technology which benefits the insurance companies within the industry more. The study also found that Artificial intelligence will have a significant Improvement on the marketing of insurance; also that Artificial intelligence will have a significant Improvement on the customer service delivery of insurance firms in Nigeria. Furthermore, Artificial intelligence will have a significant Improvement on the claims delivery of insurance firms in Nigeria and Artificial intelligence will have a significant Improvement on the underwriting of risks among insurance firms in Nigeria.

Limitations of the Study

This study is not without limitations, as it mainly focused purposively on all insurance companies in Nigeria. Only a single employee in each insurance company was allowed to fill the questionnaire which was distributed over to the entire insurance company in Nigeria irrespective of business underwritten through an online platform called Google forms. Therefore, the view of a single individual in an insurance company is insufficient enough to represent the view of the entire company. Furthermore, the sample size of 60 is considered too small; hence, the findings of the study cannot be generalized. Secondly, the study considered only the view of those in certain departments such as Underwriting, Marketing, Claims and Customer Service. Since the study was carried out among members from only four (4) departments/divisions, the study can be replicated using staff members in other departments. Likewise, the study can also be replicated among professionals in other fields, such as banking and accounting, among others. It is also recommended that the study be replicated in other insurance related institutions in Nigeria, as well as other institutions.

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