



# Perceptive Influence of Purchasing Motor Vehicle Insurance Policy from Non-regulated Firms on the Performance of Insurance Industry in Nigeria: A Customer-Based Sentiment Analysis

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**ABSTRACT:** This study examined Customers' perception on the influence of purchasing motor vehicle insurance policy from non-regulated firms on the performance of insurance industry in Nigeria. Specifically, the influence of purchasing fake insurance policy and non-renewal of expired policy bought from the regulated insurance firms on the performance of insurance industry in Nigeria were accessed. Primary data collected through the use of structured questionnaire from 92 vehicle owners in Uyo, Akwa Ibom State, Nigeria, that were selected through convenience sampling technique, was used in the study. Sentiment analysis was applied as the method of data analysis in the study. The result of the analysis indicated a neutral sentiment level of the respondents to both the influence of purchasing fake motor vehicle insurance policy and impact of non-renewal of expired motor vehicle insurance policy bought from regulated insurance firms on the performance of insurance industry in Nigeria. These findings implied a neutral perception of the effect of purchasing motor vehicle insurance policy from non-regulated insurance firms on the performance of insurance industry in Nigeria by the motor vehicle owners. The neutral perception found explains the below expectation performance of the insurance industry in Nigeria due to poor patronage. To enhance public perception in the insurance industry in Nigeria, targeted product features and benefits awareness campaigns as well as payment of genuine claims to deepen public trust in the industry were recommended.

**KEYWORDS:** Customers' perception, Motor vehicle insurance, Sentiment analysis, Nigeria.

## 1. INTRODUCTION

Risks threaten human existence and business investments and can deny individuals, households and corporate entities peace of mind and favourable environment for optimal performance (Cardona, et al., 2012) Therefore, risks exist where there is a possibility of misfortune, disaster, unfavorable outcomes, danger or adverse situation that could cause injuries, damages and loss of income, properties or lives (Inyang, 2022). In reality, risk is ubiquitous as all activities undertaken by individuals, households, business organizations, industries and the society as a whole has some risks elements. Since existence finds form in risk, then efficiency is only possible through effective management of risk. Thus, experts have recommended insurance as the most economically effective risk management strategy. Assertively, Inyang & Okonkwo (2022) opined that any arrangement aimed at reducing the chance of a risk occurring or when it occurs reduces the extent of its damage as well as provide the affected person with compensation is a form of insurance. In its arrangement, insurance as a functionary in the financial services sector provides products that cover risk that may be peculiar to the economy, financial and corporate undertakings as well as individuals and households. Practically, insurance exists to provide the avenue and mechanism of transferring risk from the person likely to suffer loss to the experts who specialize in the management of risk in a contractual arrangement (Inyang, Asuquo, Oleka, & Okeke, 2023). Hence, the insurance mechanism functions as a reversal of production function as premiums are collected when the contract is entered into and claims arise only if a specified event occurs (Mishra & Mishra, 2011). In principle, the main objective of the insurance industry is to provide compensation or indemnify and restore the insured to his or her economic and financial position prior to the occurrence of the event (Asmussen & Steffensen, 2020).



Accordingly, insurance industry which provides financial services targeted at managing financing risk and its impact on the economy is critical in the growth and development of both micro and macro economies. However, public patronage of insurance has been consistently discouraging decades after the industry was established in Nigeria. Despite decades of activity, Nigeria's insurance sector is still largely formally underexplored, with the industry's penetration at less than one percent of the GDP in 2022 (Oxford Business Group, 2023). The extremely low insurance penetration rate in Nigeria is indicative of poor patronage of insurance products by the public. The poor patronage no doubt poses a big threat to the survival of about 58 insurance firms operating in Nigeria. Undoubtedly, at the centre of all these are the customers driven most especially by public perception of the industry which constitutes the demand side effect on the industry.

Considering the nature of insurance business, public perception can drive sales of insurance products in two ways which are, purchase of insurance policy and renewal of insurance policy after expiration of cover for the term policies (Ayinde & Echchabi, 2012). However, the insurance industry in Nigeria is perpetually challenged by purchase of insurance products and the renewal of same by customers from non-regulated and non-licensed insurance companies who sale fake insurance products to the public (Okechukwu, 2016). At the marketplace, the non-regulated firms sell fake insurance products to unsuspecting customers at prices that are far below the effective rate of cover and never pay claims (Augustine & Ayoni, 2021). The insurance policy that is mostly exploited by sellers of fake insurance policies is the motor vehicle insurance policy with the third party compulsory motor vehicle cover as the most attractive (Olowokudejo & Aduloju, 2010). Data from the Nigerian Insurance Industry Datatbase, NIID, indicates that as at the end of 2022, an estimated 4 million vehicles out of over 13 million vehicles that ply Nigerian roads lacked genuine third-party motor insurance policies due to the activities of fake insurance operators which amounted to an annual loss of over 160 billion naira in premium income to the insurance sector in Nigeria. Undoubtedly, the existence of fake insurance sellers defeats the benefitting purpose of insurance mechanism in any economy as the funds mobbed by the fake insurance sellers never gets into the formal financial system for intermediation purposes and the sharp practices peculiar to the activity of selling fake insurance cover negatively affects public trust in the industry. Consequently, providing an answer to the concern of why the public patronize non-regulated insurance firms by purchasing fake insurance policies becomes imminent to guide policies and practice to reduce the volume of premium income that the insurance sector loses to this illegal parallel while restoring public confident in the insurance sector through genuine claims payments.

This study therefore assessed the perception of the public on the influence of purchasing insurance policies from the non-regulated insurance companies, with particular focus on motor vehicle insurance policies, on the performance of insurance industry in Nigeria using primary data gathered from a cross section of vehicle owners in Uyo, Akwa Ibom State, Nigeria. Specifically, the study examined public perception on the effect of purchasing fake motor vehicle insurance on the performance of insurance business in Nigeria and the effect of non-renewal of expired motor vehicle insurance policies bought from the regulated insurance firms on the performance of insurance industry in Nigeria. Notably, the findings of this study have the potential to influence policy and practice in the insurance industry and also constitute a valuable contribution to literature in the area of consumer behaviour.

## 2. REVIEW OF RELATED LITERATURE

### 2.1 Conceptual Review

#### 2.1.1 Insurance

Rejda, (2011) defines insurance as the business of pooling resources together to pay compensation to the insured or assured on the happening of a specified event in return for a periodic consideration known as premium. Omoke (2012) sees insurance as the act of pooling funds from many insured entities in order to pay for relatively uncommon but severely devastating losses which can occur to these entities. Gollier (2014) argues that insurance involved the transfer of risk from an individual to a group, sharing losses on an equitable basis by all members of the group. Therefore, an insurance contract is usually evidenced by a document called the insurance policy which the insurer – the seller of an insurance product – issues to the insured (policy holder) – typically the buyer of an insurance product (Owojori & Oluwagbuyi, 2011). The insurers are basically the registered insurance companies.

The primary objective of insurance companies, who constitute the industry, is to protect individuals and firms, known as policy-holders, from financial burdens associated with adverse events that they are exposed to (Schlesinger, 2013). Insurance companies receive premiums from policy-holders, and promise to pay compensation to policy-holders if the specific event covered by the policy occurs (Inyang, Bassey & Umunnakwe, 2022). The Insurance Act 2003 which is the legal framework for the conduct of



insurance business in Nigeria classifies insurance business into two broad areas; Life insurance business and non-life insurance business. Motor vehicle insurance business is listed in section 2(3) as one of the non-life insurance businesses that a non-life insurance company licensed to operate in Nigeria can offer to the public for consumption.

### 2.1.2 Consumer behaviour

Consumer behaviour has to do with how individual, groups or organizations select, buy, use, and dispose ideas, goods, and services to satisfy their needs and wants (Hoyer, MacInnis & Pieters, 2012). Similarly, consumer behavior is the study of how people make decisions about what they buy, want, need, or act in regards to a product, service, or company. It refers to the actions of the consumers in the marketplace and the underlying motives for those actions (Kardes, Cronley & Cline, 2014). It is critical to understand consumer behavior to know how potential customers will respond to a product or service. Understanding consumer behavior also helps companies identify opportunities that are not currently met. Consumer behavior can be influenced by psychological, personal or social factors (Zhang & Benyoucef, 2016). Psychological factors include perception of a need or situation, a person's ability to understand information and the attitude of an individual. Personal factors are characteristics that are specific to a person and may not relate to other people within the same group. These characteristics may include how a person makes decisions, their unique habits and interests, and opinions. When considering personal factors, decisions are also influenced by age, gender, background, culture, and other personal issues. Social factors, sometimes called influencers, are quite diverse and can include a person's family, social interaction, work or school communities, or any group of people a person affiliates with. It can also include a person's social class, which involves income, living conditions, and education level. The behavior of a consumer is driven by these factors and the understanding of same is useful in taking market decisions.

### 2.2 Theoretical Review

The theoretical basis for this study is the choice theory, propounded by William Glasser in 1965 (Wubbolding, 2011). Choice Theory is based on the simple premise that all behaviours that have anything directly to do with satisfying the needs of an individual, are chosen. The theory further posits that individuals are empowered to take responsibility for their choices and support others in taking ownership of their choices. The application of the theory intends to unravel how people make more effective, conscious choices to meet their wants and needs, rather than be propelled by habits, fears, anxieties, and negative or harmful influences and beliefs. This theory clearly links individual choices to their perception.

Consequently buying insurance is a choice as the income of an individual has other competing needs sometimes a lot basic than purchase of an insurance product. Furthermore, the decision to buy an insurance product can be influenced by experience and belief. More so, the poor public confidence in the insurance industry may influence public purchasing choice of insurance products. Thus, this theory is related to this study as the purchase of insurance is choice driven.

### 2.3 Empirical Review

An Indian study by Das & Rao (2017) assessed the relationship between consumer buying behaviour and satisfaction in motor insurance policyholders using cross sectional data gathered from 150 randomly sampled respondents through the instrumentality of questionnaire. The data was analysed using Pearson correlation and linear regression. Results from the Pearson correlation indicated a weak correlation between consumer buying behaviour and customer satisfaction while estimates from the linear regression showed that 14.5% of the buying behaviour of the motor insurance customers could be explained by the satisfaction of the customers. The authors concluded that the finding of the study will have great impact in the understanding of the buying pattern of motor policy in India.

Rajeswari & Kartheeswari (2012) examined the purchase decision of life insurance policyholders in South Tamil Nadu in India using cross-sectional data gathered through the use of questionnaire and analysed using regression model. The result showed that among the policy holders with different age groups, the younger groups have positive attitude with insurance plans than elders. It was concluded that although there has been a significant and rapid advancement in the area of customer management, there are many issues that need to be explored as insurance companies across the world needs to recognize the value of superior customer care.

Jani & Jain (2014) examined the buying behavioral pattern of urban and rural investors for the insurance in nine rural areas and nine urban areas involving 900 investors (450 urban and 450 rural) in Gujarat state in India. The study assessed the impact of various demographic factors like age, gender, education, income and category on the buying behavioral pattern of the investors. Results



obtained from the Chi-square test used in analyzing the data revealed that Age Gender, Occupation, Educational Qualification and Income had significant impact on the buying behavioral pattern on rural and urban investors for buying insurance. It was concluded that financial advisors played a crucial role in determining decision for investors.

A literature review by Haider & Shamsuzzama (2017) focused on revealing the overall impact of different factors that influences consumer's behavior towards the demand of life insurance policy. The authors observed that, some factors have strong positive influence like income, education, employment while some have negative influence like price of policy, social security and tax. However, it was concluded that the overall understanding of factors that impact consumer behaviour towards life insurance is arbitrary because factors such as wealth, inflation, culture, religion impacts the behaviour of consumers in both positive and negative ways. Therefore it was recommended that insurance companies needs to have a proper knowledge about the demography, development and the behaviour of the consumers residing within their country of operation to deepen their market penetration through sells.

Yadav & Sudhakar (2017) conducted a study to check the personal factors influencing purchase decision making among health insurance policy holders in India using data collected through a structured questionnaire from 170 customers which was analysed with the use of factor analysis. The study found that awareness, tax benefits, financial security, life style and risk cover had significant relationship with decision making process for the purchase of life insurance policy.

### 3. REASERCH METHODOLOGY

#### 3.1 Research Design

Survey research design was used in this study (Alderman & Salem, 2010). This design involves gathering first hand information directly from the population of study. This is carried out through direct contact with the respondents.

#### 3.2 Nature and Source of Data

Primary data that was gathered directly from the respondents was used in the study. Primary data emanate from information generated directly from the subjects in a population of interest of a study for analysis to address the research questions of a study.

#### 3.3 Population of the study

The Population of study is made up of owners of motor vehicles - privately and commercially used to include tri-cycles, mini-buses, cars and buses - in Uyo, Akwa Ibom State. The population of the study was selected in line with the focus of the study and because third party motor vehicle insurance policy is compulsory for the population which will support adequacy in the size of the population for the study. The ease in contacting the respondents at commercial motor parks, social gatherings, filling stations and shopping malls also informed the choice of the population.

#### 3.4 Sampling technique and sampling size

A non-probabilistic sampling method called convenience sampling technique was used in the study (Sedgwick, 2013). This sampling technique was used because data was collected from respondents that the researcher can reach and get information from easily. Also, there were no criteria for selecting elements in the population as respondents since all elements in the population were eligible for inclusion which informed the use a non-probabilistic sampling technique, convenience sampling technique. Thus, 103 respondents were conveniently selected and the instrument of data collection administered on them. All 103 data collection instruments were returned and 92, representing 89% of the total number of data collection instruments administered, were correctly completed and useful. Thus, 92 respondents was the sample size used for the study.

#### 3.5 Data collection instrument

The instrument used for data collection was questionnaire. The questionnaire had two sections. Section one of the questionnaire, collected socio-demographic data of the respondents. Section two focused on collecting data to address the hypothesis of the study using a five point likert scale.

#### 3.6 Validity of the Instrument

Validity was established using construct validity method (Taherdoost, 2016). The construct validity was achieved by ensuring that the questions in the questionnaire were constructed in a manner that it solely elucidated responses to address the objectives of the study. Thus purchase of motor vehicle insurance were measured by the buying of fake motor vehicle insurance policy from non-





regulated insurance firms and non-renewal of expired motor vehicle insurance policy bought from the regulated insurance companies.

### 3.7 Reliability of the Instrument

To ensure reliability of the data collection instrument, the researcher used test and re-test method that involved 20 respondents (Ajayi, 2013). Tens respondents were administered the questionnaire and after two weeks the same respondents were administered the same questionnaire for the second time. Data on the responses were gathered for the two sets of the questionnaire administered and Spearman's rank correlation was applied to determine the validity of the instrument by examining the level of correlation between the first responses and the second responses. A spearman correlation coefficient of 0.69 which is indicative of a strong positive correlation was obtained affirming the validity of the instrument of data collection used in the study (Ajayi, 2017).

### 3.8 Data analysis technique

The statistical technique used in this study was sentiment analysis (Fang & Zhan, 2015). The choice of this method of data analysis was informed by the fact that the study is a single variable non-experimental study. The use of this method of data analysis is also supported by the design of the instrument used in gathering the data which was a likert-scale styled survey. Also, this method of data analysis best fits studies that examine customers' behaviour to guide supply related decisions. The possibility of estimating the sentiment score of the respondents for each question as well as for the entire questionnaire makes this method of data analysis very insightful and useful.

Two steps are involved in the estimation of the sentiment score of the respondents for each question. Given that the 5 scaled likert items represent the sentiment levels of the respondents, the first step involves assigning values to each of the sentiment levels in a horizontal manner starting from one to five, in the order negative to positive sentiment levels, which is followed by obtaining the product of the values of the sentiment levels and the corresponding number of responses. The second step involves finding the sentiment score for the question by dividing the total of the products by the total number of respondents. The interpretation of the sentiment score aligns with the numerical values assigned to the sentiment levels. After estimating the sentiment score for each question in the questionnaire, the sentiment score of the questionnaire can be calculated by finding the average of the sentiment scores of all the questions in the questionnaire if it is necessary. Notably, the sentiment score for each of the questions is used in addressing the specific objectives of the study while the sentiment score of the questionnaire is used in addressing the main objective of the study. Table 1 presents the sentiment scores and their corresponding levels of perception for a five point likert scaled response survey. Stata 13 statistical software was used in analyzing the data for the study.

**Table 1** - Sentiment Scores and Corresponding level of perception

<i>Sentiment level</i>	<i>Sentiment Score/Numerical value</i>	<i>Level of Perceptive</i>
Very high extent	5	High
High extent	4	
Neutral	3	Neutral
Less extent	2	Low
Very less extent	1	

Source: Researchers' Construct

## 4. PRESENTATION OF RESULTS AND DISCUSSION OF FINDING

### 4.1 Presentation of results

#### 4.1.1 Sentiment score of the respondents to the influence of purchasing fake motor insurance on the performance of insurance industry in Nigeria.

Table 2 presents the summary of responses to the question "to what extent does the purchase of fake motor vehicle insurance influence the performance of the insurance industry in Nigeria?" The five sentiment levels and their corresponding assigned numerical values as well as the number of responses and percentage of responses are presented in table 2. Out of the total of 92 responses 24 participants (26.06%), 23 participants (25%) and 9 participants (9.78%) expressed very high level, high level and neutral sentiments in their responses. However, 19 respondents (20.68%) and 17 respondents (18.48%) affirmed low extent and



very low extent sentiment levels as their responses. Additionally, a sentiment score of 3.19 was obtained from the responses. In accordance with practice the sentiment score was expressed to the nearest whole number, 3.

**Table 2** – Summary of responses to the question “to what extent does the purchase of fake motor vehicle insurance influence the performance of the insurance industry in Nigeria?”

Sentiment level	A Numerical value	B No. of Responses	C % Response	D A x B
Very high extent	5	24	26.06	120
High extent	4	23	25.00	92
Neutral	3	9	9.78	27
Low extent	2	19	20.68	38
Very low extent	1	17	18.48	17
<b>Total</b>		<b>92</b>	<b>100</b>	<b>294</b>
<b>Sentiment Score</b>	<b>Quotient of D/B = 3.19 ≈ 3</b>			

Source: Researchers’ computation from the survey

**4.1.2. Sentiment score of respondents to the influence of non-renewal of expired motor vehicle insurance policy bought from the regulated insurance firms on the performance of insurance industry in Nigeria.**

Table 3 presents details on the sentiment levels, numerical values assigned to the sentiment levels, number of responses and corresponding percentages of the responses to the question “to what extent does non-renewal of expired motor vehicle insurance policy bought from the regulated insurance firms influence the performance of the insurance industry in Nigeria?” A total of 92 responses were obtained as 25 respondents (27.17%), 20 respondents (21.74%) and 9 respondents (9.84%) expressed very high extent, high extent and neutral sentiments respectively. Correspondingly, 22 participants (23.92%) and 16 participants (17.39%) responded to less extent and very less extent. Furthermore, a sentiment score of 3.17 was obtained from the responses and was approximated to the nearest whole number, 3, as practice demands.

**Table 3** – Summary of responses to the question “to what extent does non-renewal of expired motor vehicle insurance bought from the regulated insurance firms influence the performance of the insurance industry in Nigeria?”

Sentiment level	A Numerical value	B No. of Responses	C % Response	D A x B
Very high extent	5	25	27.17	125
High extent	4	20	21.74	80
Neutral	3	9	9.84	27
Less extent	2	22	23.92	44
Very less extent	1	16	17.39	16
<b>Total</b>		<b>92</b>	<b>100</b>	<b>292</b>
<b>Sentiment Score</b>	<b>Quotient of D/B = 3.17 ≈ 3.</b>			

Source: Researchers’ computation from the survey

**4.2 Discussion of Findings**

**4.2.1. Perception of influence of purchase of fake motor vehicle insurance on the performance of the insurance industry in Nigeria.**

The sentiment score of the respondents to the question “to what extent does the purchase of fake motor vehicle insurance influence the performance of the insurance industry in Nigeria?” was obtained as 3. However, from the numerical values assigned to the sentiment levels 3 indicates that the respondents expressed neutral sentiment. This therefore indicates that the respondents had a neutral perception on the extent that purchase of fake motor vehicle insurance policy influences the performance of the industry in



Nigeria. Furthermore, the result indicates that the respondents generally feel indifference on the value of the products. At the market place, neutral perception most likely result to customers not insisting on purchasing the product concerned as available substitutes maybe be regarded as an effective alternative. Thus, neutral perception of any product by customers is typically regarded as a signal for the supply side actors to take strategic actions to deepen customers' knowledge of their product or service to increase rate of patronage. The finding of this study contradicts that of Sagagi, Ekperi & Nwadike, (2019) that reported low level of perception of insurance companies and their products in Enugu State Nigeria.

#### **4.2.2. Perception of influence of non-renewal of expired motor vehicle insurance bought from regulated insurance firms on the performance of the insurance industry in Nigeria**

A sentiment score of 3 was obtained from the responses to the question "to what extent does non-renewal of expired motor vehicle insurance influence the performance of the insurance industry in Nigeria?" Obtaining 3 as the sentiment score is indicative of neutral sentiment level by the respondent as per the numeric value assigned to the sentiment levels used in the study. The neutral sentiment expressed by the respondents show that the respondents are indifference in their perception of the influence of non-renewal of motor vehicle insurance on the performance of insurance sector in Nigeria. The indifference perception will reflect in the plateau nature of the demand curve for renewal of motor vehicle insurance policy bought from the regulated insurance firms by insureds upon expiration. This finding differs from that of (ref) of an increase in the demand curve of renewal of motor vehicle insurance influenced by vehicle ownership.

## **5. CONCLUSION**

This study examined public perception on the influence of purchasing insurance policies from the non-regulated insurance companies with particular focus on motor vehicle insurance policies on the performance of insurance industry in Nigeria. Primary data gathered through the instrumentality of a structured questionnaire administered on 92 vehicle owners in Uyo, Akwa Ibom State, Nigeria, that were selected through convenience sampling technique, was used in the study. Sentiment score analysis was applied in the study as the method of data analysis. The result of the analysis indicated a neutral sentiment level of 3 of the respondents to both the influence of purchasing fake motor vehicle insurance policy and impact of non-renewal of expired motor vehicle insurance policy bought from regulated insurance firms on the performance of insurance industry in Nigeria. These findings indicate a neutral perception of the effect of purchasing motor vehicle insurance policy from non-regulated insurance firms on the performance of insurance industry in Nigeria by the motor vehicle owners in Nigeria. The neutral perception found suggests possibility of non-increase in the demand for motor vehicle insurance from the regulated insurance firms by owners of motor vehicles in Nigeria which is detrimental to the performance of the insurance industry in the country. To improve the perception of the public on insurance products, regulated insurance firms should embark on product features and benefit awareness campaign on specific insurance products targeting the specific customers that the product was designed to carter for their needs. Also, regulated insurance product providers should pay genuine claims to encourage renewal of insurance cover at expiration. Future study can apply standard models to assess the influence of customers' perception on the service delivery satisfaction to deepen knowledge in the area.

**Funding:** This research was funded by RHAB-YESS Foundation research grant.

**Conflict of interest:** Authors had no conflict of interest to disclose.

**Ethical statement:** This research did not require ethical approval as it did not involve human or animal experiment.

**Acknowledgement:** The authors acknowledge the valuable contribution of scholars in Risk Management and Insurance research cluster and research for impact cluster of the University of Uyo to this study. Time spent by scholars in the clusters to review and discuss this work improved the quality of the study.

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*Cite this Article: Uduakobong Inyang, James Onyiyechi Orji, Vincent Chukwuka Okparaka, Daniel Chukwudi Okeke (2023). Perceptive Influence of Purchasing Motor Vehicle Insurance Policy from Non-regulated Firms on the Performance of Insurance Industry in Nigeria: A Customer-Based Sentiment Analysis. International Journal of Current Science Research and Review, 6(9), 6486-6490*