Risk Attitude and Demand for Motor Insurance: An Examination of Selected Motorists in Lagos State, Nigeria

Sunday Stephen Ajemunigbohun (Corresponding Author)
Department of Insurance, Lagos State University, P.M.B. 0001, LASU Post Office, Ojo, Lagos, Nigeria
Email: insurancelecturerlasu2009@yahoo.com

Ademola Sulaiman Oreshile
Department of Insurance, Lagos State University, P.M.B. 0001, LASU Post Office, Ojo, Lagos, Nigeria
Email: counsellor_ins@yahoo.com

Abstract
Aims: This research aimed at drawing the attention of motorists and insurance practitioners in Nigeria to risk occurrences, drivers’ risk attitude, and demand for motor insurance. For this reason, the researchers have evaluated the significant influence of drivers’ risk attitude on risk occurrence and thus, examined the significant relationship between motorists’ risk attitude and motor insurance demand. Study design: The study employed cross-sectional survey design. Place and duration of study: Study was carried out in Lagos Metropolis. Duration of study was from December, 2012 to February, 2014. Methodology: The research commenced with gathering of literature survey. The study employed stratified random sampling technique and also, gathered data through the use of structured questionnaire. The sample population consisted of 270 respondents made up of motorists of private, commercial and company-used drawn from Six Local Government Council Areas of Lagos State. The statistical instruments employed for this study were Kolmogorov-smirnov test and Multiple regression. Results: Two hypotheses were tested in this study. For hypothesis 1, the use of Kolmogorov-smirnov test evidenced that driver’s attitude has significant influence on risk occurrence. For hypothesis 2, the Multiple regression presented that risk attitude of motorists has significant but negative relationship with the demand for motor insurance. Conclusion: The research evidenced a significant interrelationship between the understudied constructs i.e. drivers’ risk attitude, risk occurrence and motor insurance demand.

Keywords: Drivers’ risk attitude, motorist income level, insurance pricing, risk occurrence, Government regulation, Lagos State, Nigeria

1. INTRODUCTION
Drivers’ habit on Nigeria’s roads has been an awful experience compared to driving tenets in some other developed countries. Government, on its part, had made series of efforts to reducing the number of road accidents experienced year in year out. Nonetheless, the driving attitude of motorists in Nigeria is still put to question with respect to the enormous motor risks they are exposed to. In the past, Nigeria had been placed as one of the countries of the world that recognizes the need for motor insurance at least for the coverage of third party motor risks (Serap, 2009). This is, therefore, a more cogent reason why insurance, as a scientific technique, has been seen as suitable tool for managing driver’s risk attitude, driving pattern, behaviour and perception.

The United Nation’s medium projection of world’s population in 2030 is 8.1 billion, nearly a 35% increase over the present. More so, substantial per capita income growth and combined population are expected to produce unprecedented increase in vehicle ownership and use (Harrington, 2003). Dargay and Gately (1999) had earlier applied their model of income elasticity to World Bank GDP growth estimates, extrapolated to 2015, and found that the world vehicle fleet would nearly double between 1992 and 2015. In their study, China, being the world’s most populous country as well as an economic dynamo, was examined; and they projected vehicle ownership to increase from 2 to 60 vehicles per 1000 population, for a total of 78 million vehicles.

However, the Nigeria’s insurance market is dominated by non-life segment, driven by mandatory third-party motor insurance. The growth in motor insurance (especially third-party policies) had also been fueled by the rapidly emerging middle class in Nigeria as private cars are fast becoming a necessity rather than luxury (Afrinvest, 2011). In 2008, National Insurance Commission (NAICOM) introduced the Market Development and Restructuring Initiative (MDRI), a medium term reform plan (covering 2009 to 2012), aimed at improving capacity of the industry, efficiency of the market and protection of consumers in the insurance market environment in Nigeria. The reform plan principally focuses on the implementation of compulsory insurance covering six areas, with motor third party insurance inclusive. According to a report by Zimolo (2010), the year 2008 recorded that 42.3% of the total circulating vehicles in Nigeria were commercial vehicles; while 1.0% was registered vehicles per resident population, 0.6% was for registered motor cars per resident population. In another related report by Chidoka (2011), there was an estimated 7.7 million drivers in Nigeria. Also reported was the compliance level of vehicle insurance which was noted to remain unknown in Nigeria due to factors such as: (i) most drivers drive without insurance papers and do not patronize insurers; (ii) most people do not
have confidence in insurance claims; (iii) some drivers drive with expired insurance papers; (iv) most drivers use touts to obtain fake/forged insurance documents; and (v) compliance is at a level of near non-compliance.

In August 2012, researchers at MIT published results from a study that found that drivers who frequently used cell phones behind the wheel were more likely than those who did so infrequently to report or be observed engaging in other risky behavior, such as frequent lane changing, speeding and hard acceleration (Zhao et al., 2012). Additionally, the National Highway Traffic Safety Administration (2012) reports that more than 3,000 people are killed and nearly half a million are injured each year in distraction-related crashes. Hendrick, Fell and Freedman (1999) had earlier performed a study on unsafe driving acts in serious traffic crashes to determine the specific driver behaviour and unsafe driving acts that lead to crashes, and the situational driver and vehicle characteristics associated with these behaviours. It was also reported that driver behaviour contributed to 99% of the crashes investigated, with the six causal factors that accounted for most of the problem behaviour in decreasing order of frequency, being driver inattention, vehicle speed, alcohol impairment, perceptual errors, decision errors and incapacitation.

This study is concerned with ascertaining the significant influence which driving attitude of motorists has on risk occurrence; and thus, to examine the significant relationship between motorist’s risk attitude and motor insurance demand.

**Research Questions and Research Hypotheses**

For the purpose of this research, the following relevant research questions were set:

i. Does driver’s attitude has a significant influence on the occurrence of risk?
ii. Is there any significant relationship between motorists’ risk attitude and demand for motor insurance?

Thus, to provide answer to the questions highlighted above, the following testable hypothetical statements were considered:

i. Ho: Driver’s attitude has no significant influence on risk occurrence.
ii. Ho: Risk attitude of motorists has no significant relationship with the demand for motor insurance.

**Theoretical and empirical framework**

Risk has been seen as a multidimensional concept. It is a necessary evil that permeates every facet of life. According to Vaughan and Vaughan (2008), risk is being seen as a condition of the real world in which there is an exposure to adversity. Thus, stressed further, it is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for. Atkins and Bates (2008) see risk as the deviation from a desired outcome that is expected or hoped for. Atkins and Bates (2008) see risk as an exposure to adversity. Thus, stressed further, it is a condition in which there is a possibility of an adverse

Many studies in the past have underpinned the concept ‘risk attitude’ within certain frameworks. From the Expected Utility (EU) framework, according to Kahneman and Tversky (1979), risk attitude is nothing more than a descriptive label for the shape of the utility function presumed to underlie a person’s choices. Risk attitude, thus, has been considered to be a personality trait, and that greater risk taking is sometimes found to be associated with greater personal and corporate success (MacCrimmon & Wehrung 1990). The terms ‘risk averse’ and ‘risk seeking’ within the Expected Utility framework technically refer only to the curvature of the utility function (Weber et al., 2002). Other researchers have also argued earlier that risk attitude is more typically conceptualized in the risk-return framework of risky choice used in finance (Sarin & Weber, 1993). Within the risk-return framework, the perceived-risk attitude, a term coined by Weber and Milliman (1997) was operationalized as the risk trade off coefficient and thus earlier regarded as ‘risk repugnance’ (Yates & Stone, 1992). This reflects the assumption that ‘pure’ attitude towards risk is always negative and that apparent evidence to the contrary is always the result of discrepancies between perceptions of risks or benefits between the decision maker and some objective external observer.

A report of a panel committee constituted between the year 1993 and 2002 in Hong Kong to review the major contributory factors of traffic accidents had noted that, on average, about 65% of accidents are driver related. The report of the panel revealed that the inappropriate driving behaviour commonly exhibited by drivers includes: driving too close to the vehicle in front; turning or reversing negligently; careless lane changing; driving at an inappropriate speed; failing to obey traffic signals and late use of or failing to use indicators. Among the road transport mechanisms such as: road environment, vehicles, road users and the likes, the human factor has been seen as the most complex and dynamic. According to a study conducted by the Federal Road Safety Commission, Nigeria (2008) on road traffic crashes (RTC); it has shown that there are three major causes of these crashes namely: human factor, mechanical factor and environment factor. While human factor was noted
to constitute about 90% of the RTC (out of which drivers’ actions or reactions make up 80%), 10% was said to be mechanical.

A road traffic collision is the outcome of interaction among a number of factors; some of which may not appear to be directly related to road traffic injuries. The prime risk factors have been categorized, according to the Training Manual for Road Traffic Injury Prevention (n.d.), into four groups, viz: (i) factors influencing exposure to such as demographic and economic factors, level of motorization, and land use planning practices; (ii) factors influencing crash involvement such as inappropriate and excessive speed, drinking and driving, unsafe road design, fatigue, and lack of effective law enforcement and safety regulations; (iii) factors influencing crash and injury severity, such as the non-use of seat belts, child restraints or crash helmets, insufficient vehicle crash protection for occupants and for those hit by vehicles, and presence of alcohol; and (iv) factors influencing post-crash injury outcomes, such as delay in detecting the crash and providing life-saving measures and psychological support, lack of appropriate pre-hospital care, among others.

A number of studies explored also gave divergent contributions into risk factors for road accidents among drivers; which are: drivers’ recklessness and negligence, mechanical defects in vehicle, drivers’ overconfidence and tiredness, carelessness in road crossing by pedestrians, bad roads (Oyemade, 1973; Asogwa, 1980); use of alcohol, kolanut, Indian hemp (Asogwa, 1978); poor sight (Toczolowski et al., 1996; Bener et al., 2004); cataract (Owsley et al., 1999; West et al., 2003); and medical condition and crash severity (Laberge-Nadeau et al., 1996).

Motor vehicles first appeared on the roads during the 1880s and the first motor insurance policies were issued during the 1890s (Ellis, 1983). By and large, it is noteworthy to mention that the early years of the twentieth century saw the formation of insurance companies in which the main emphasis was upon motor insurance and thus, the motor tariff came into operation within the framework of the Accident Offices’ Association. Chen and Baker (2000) stipulate that motor users are exposed to some fundamental risks, which they mention as: (i) cost of repairing the vehicle following an accident; (ii) cost of procuring a new vehicle if stolen or damaged above economic repair; and (iii) legal liability claims against the driver or owner of the vehicle due to injury or damage to the third-party.

However, the Nigeria’s motor tariff prescribes the standard format for underwriting motor insurance and general regulations applicable to all types of motor vehicle including those belonging to or held in trust by motor trade. According to Akintayo (2004), some of the general regulations are: value of vehicles; period of insurance; short period rates; cancellation of policies; No claim discount; joint insureds/policies; vehicles paid-up; and vehicles hire under contract for not less than twelve months and not being a hire purchase contract. Ngwuta (2007) thus posited that motor insurance is usually grouped according to the usage of vehicles, i.e. private cars; commercial vehicles; passenger carrying vehicles; goods carrying vehicles; public authorities vehicles; agricultural and forestry vehicles; and mechanical plants of special design.

A market where pricing is tariff-driven without sufficient proof or statistics to back up the adequacy of charges is bound to suffer the fate of our motor insurance pricing (Ozioko, 2007). The essential attributes of insurance operation is such that the insurer in pricing a specific risk or group of risks needs to make basic assumptions concerning the expected cost of assuming such risk; which then implies that some degree of uncertainty is involved in the cost of insurance operation. Insurance premium, according to Trieschmann, Hoyt and Sommer (2005), is described as the total cost of insurance, found by multiplying the rate by the number of units covered. Asokere and Nwankwo (2010) argued that the workability of insurance pricing is hinges upon certain factors which they mentioned as: adequacy, reasonableness, equity, technical profitability and induced loss prevention. In an earlier related study, insurance premium had been said not to be excessive, inadequate, or unfairly discriminatory (Nahum & Kahane, 1978). According to Kiseok and Kang (2004), the excessiveness and the adequacy are in relation to the aggregation of insurance premium portfolio held by an insurance company and the fairness is in association with the individual premium of an insurance contract. As suggested by Ligon and Thistle (2007), an increased volatility of insurance prices due to insurers’ overconfidence may be a contributing factor in insurance cycles; and that changes in prices in response to information may be asymmetric.

Four key issues, according to Nyce (2007), had been said to affect how insurance markets function with regard to pricing: adverse selection, moral hazard, actuarial compared with social equity, and timing. With adverse selection knowledge, appropriate insurance pricing requires that the insurer be able to gather sufficient information about the applicant to adequately assess and price a particular policy. Moral and morale hazard problems are common in motor insurance and they are behavior problems that affect insurance markets when providing insurance to individuals and organizations. More so, actuarial equity and social equity affect insurance pricing. While actuarial equity is founded in cost-based pricing, social equity involves two concepts. The first of which is that insurers should relate the amount each person should pay for insurance to his or her ability to pay rather than to the person’s loss exposure or expense factor. The second concept is that insurers should not increase an insured’s insurance premium because of criteria that are beyond that individual’s control. Lastly, one final significant issue in insurance pricing is timing.
An earlier study of Dahlby (1983) demonstrated that as the price of coverage increases, the percentage of drivers who purchase insurance decreases. From the perspective of ensuring a sustainable commercial supply of the insurance contract, it is vital that certain components are reliably measurable at low cost and that their effect not be influenced by the behaviour of any insured individual or by which subset of individuals’ purchase of insurance. As the ‘supply-side’ considerations clearly vital, so are the ‘demand-side’ considerations are equally important if insurance is to provide a sustainable solution to the development problems created by uninsured risk (Chantarat et al., 2013). Seog (2006) had argued that the driving force of insurance demand is of strategic consideration.

Market failure occurs when supply and demand do not intersect at a sustainable price and quantity. Several factors, according to Nyce (2007), affect the demand for insurance. These factors are: insurance mandates and regulation; risk tolerance; financial status; real services rendered; and tax incentives. The earlier work of Bouzouita and Bajtelsmit (1997), and Tennyson (1997) focused on the effect of rate regulation on the automobile insurance industry. While Bouzouita and Bajtelsmit establish a positive relationship between rate regulation and the relative size of the residual market; Tennyson demonstrated that rate regulation itself has little if any effect on insurance market structures but that stringent rate regulation reduces incentives for insurers to participate in the automobile insurance market. Their work was in support with earlier studies (such as Grabowski et al., 1989; Harrington, 1992) who demonstrated the mixed effects of rate regulation on insurance prices.

2. RESEARCH METHOD
The study made use of a cross-sectional survey research design. The involvement of survey design was due to its ability to predict behaviour (Bordens & Abbott, 2002); and assist in collecting the same information about all the cases in a sample (Aldridge & Levine, 2001). In pursuit of the study objectives, the research instrument used was a structured and non-disguised questionnaire with close-ended questions, designed from literature review and previous studies. The use of questionnaire survey is advantageous due to its suitability to survey research (Babbie, 2005). The views of respective respondents to the understudied issues were coded to enhance the completion of the questionnaire schedule which was drawn using a Likert-type scale measurement of ‘Agree’, ‘Undecided’ and ‘Disagree’. More so, each response must be assigned a numerical code before it can be entered into SPSS (Pallant, 2011). Accordingly, Agree = 3, Undecided = 2, & Disagree = 1.

Six Local Government Council Areas chosen in Lagos Metropolis comprised of: Alimosho, Ajeromi-Ifeolodun, Mushin, Ojo, Surulere, and Shomolu. The choice of these sample areas was due to their high population density and industrial activities that require frequent vehicular movement of both human and material resources. This research employed a stratified sampling technique. Therefore, 3 strata of the sample population were considered which comprised of private, commercial and company use of motor vehicles. 20 responses were set out for each stratum to arrive at 60 responses from each of the sample areas to get a total of 360 respondents. For the purpose of the analysis of collected data, it was discovered that 45 responses could be genuinely extracted from each of the sample areas, which brings the total of responses useful for data analysis to 270. The essence of this is to ensure that the number is proportional to the stratum’s share of the total population (Asika, 2008).

This study looks into the validity of the research instrument which comprises construct, content and predictive validity. However, while the construct validity confirmed the extensive use of well-grounded literatures from relevant studies, the content validity thus confirmed the distribution of a set of draft questionnaire to few selected risk management experts and members of the academia in the field of transport management and insurance. These experts were able to go through the items on the instrument and came up with necessary suggestions which assisted the researchers to present the items to respondents for better understanding. The third validity, (i.e. predictive), explains the soundness of the study via an approached adopted by Oyedijo (2012). This involved a relentless and in-depth discussion of the results of the study with sound-minded, knowledgeable and experienced motorists who are outside the sample population; and more so, their level of agreement with the result provided a high degree of evidence of the predictive validity.

Test of Hypotheses
The need for hypotheses is to provide direction for this study and prevent the review of irrelevant literature and the collection of useless or excessive data (Osuala, 2005). A test of hypothesis has been described as a statistical technique that uses sample data to ascertain a hypothesis about the parameter of a population (Gravetter & Wallnau, 2000). Two hypotheses test technique were employed in this research. For hypothesis 1, the Kolmogorov-Smirnov test was employed, while multiple regression technique was adopted in the test for hypothesis 2. The Kolmogorov-Smirnov One Sample Test is suitable due to its non-parametric nature which helps to test the goodness of fit of; and thus, compares the distribution on an ordinal scale (Cooper & Schindler, 2006). The Kolmogorov-Smirnov is described as:
\[ D = \max \left| F_0(X) - S_n(X) \right| \]

Where \( F_0(X) \) = the specific cumulative frequency distribution under Ho for any value of X and is the proportion of cases expected to have scores equal to or less than X. \( S_n(X) \) = the observed cumulative frequency distribution of a random sample of N observations where X is any possible score. The Ho is the specification of the null hypothesis. The null hypothesis is such that is set up as a logical counterpart of the alternative hypothesis such that if the null hypothesis is untrue, the alternative hypothesis must be true (Pagano, 1994). The decision rule is such that null hypothesis (Ho) will be rejected once the calculated D (i.e. \( D_{cal} \)) is greater than the tabulated D (i.e. \( D_{tab} \)) under the divergence level of 0.05. The tabulated D from the Kolmogorov-Smirnov test table is always represented by \( (a/\sqrt{N}) \); where \( a=1.36 \) and N=number of observation. The critical value of D for sample size of N must be greater than thirty-five (i.e. N>35 - for large samples).

For hypothesis 2, regression analysis was adopted in analyzing the data obtained. This was done in order to establish the relationship between motorists’ risk attitude and motor insurance demand in the study areas. The regression analysis is appropriate because it helps predict and improves on the knowledge of the variables of interest (Mojekwu, 1996). The multiple regression analysis is computed via the use of statistical package for social sciences (SPSS).

3. RESULTS AND DISCUSSION

Table 1: Responses to the testing of hypothesis 1

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Responses</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>23</td>
<td>8.52</td>
</tr>
<tr>
<td>Undecided</td>
<td>58</td>
<td>21.48</td>
</tr>
<tr>
<td>Disagree</td>
<td>189</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>270</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: Authors’ Fieldwork

Table 2: Kolmogorov-Smirnov frequency table for Hypothesis 1

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Rank of view of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>F= Driver’s attitude has no significant influence on risk occurrence</td>
<td>23</td>
</tr>
<tr>
<td>Fo(X) = Theoretical cumulative distribution of choices under Ho</td>
<td>0.3333</td>
</tr>
<tr>
<td>Sn(X) = Cumulative distribution of observed choices</td>
<td>0.0851</td>
</tr>
<tr>
<td></td>
<td>0.2482</td>
</tr>
</tbody>
</table>

Source: Data Analysis

Hypothesis 1

Driver’s attitude has no significant influence on risk occurrence. From the Kolmogorov-Smirnov frequency table for the hypothesis, the calculated D value is the point of greatest divergence between the cumulative theoretical distribution and cumulative observed which is 0.3361. The tabulated D from the Kolmogorov-Smirnov test table at \( (a/\sqrt{N} = 1.36/\sqrt{270}) \) is given as:

\[ D = a / \sqrt{N} = 1.36 / \sqrt{270} = 0.0827 \]

In this case, since calculated D value (0.3666) exceeds the critical value of 0.0827, the null hypothesis (Ho) stating that driver’s attitude has no significant influence on risk occurrence is rejected at \( \alpha=0.05 \) (see table 2). This, therefore, indicates that driver’s attitude, according to the respondents’ view, has significant influence on risk occurrence. This result confirms the earlier study of Avineri and Goodwin (2009) who stipulated that behavioural changes is said to affect drivers’ health and their transportation.

Hypothesis 2

In an attempt to examine the determinants of motor insurance demand in the study areas, the following variables (i.e. income level, government regulation and insurance price) were investigated alongside motorists’ risk attitude.

The model is specified as:

\[ Y = a_0 + b_1 x_1 + b_2 x_2 + b_3 \cdots \cdots + b_n x_n + U_i \]  
\[ \text{eqn (i)} \]

Where \( a = \text{Constant} \)

\( x_1 \cdots \cdots x_n = \text{Explanatory variables} \)
\( b_i \) = Parameters to be estimated (i = 1, 2, 3, ….. n)

\( U_i \) = Error term or disturbance term

\( Y \) = Dependent variable (Motor Insurance Demand)

\( X_1 \) = Motorists’ Risk Attitude

\( X_2 \) = Income level

\( X_3 \) = Insurance Price (Premium)

\( X_4 \) = Government Regulation

Table 3: Responses to the testing of hypothesis 2

<table>
<thead>
<tr>
<th>Response</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorists’ risk attitude</td>
<td>137</td>
<td>85</td>
<td>48</td>
<td>270</td>
</tr>
<tr>
<td>Government regulation</td>
<td>131</td>
<td>81</td>
<td>58</td>
<td>270</td>
</tr>
<tr>
<td>Income level</td>
<td>129</td>
<td>89</td>
<td>52</td>
<td>270</td>
</tr>
<tr>
<td>Insurance price</td>
<td>161</td>
<td>88</td>
<td>21</td>
<td>270</td>
</tr>
<tr>
<td>Demand for motor insurance</td>
<td>113</td>
<td>71</td>
<td>86</td>
<td>270</td>
</tr>
</tbody>
</table>

Source: Authors’ Fieldwork

Table 4: Multiple regression analysis of contribution of independent variables

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Multiple R</th>
<th>R Square (R^2)</th>
<th>Adjusted R square</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.908</td>
<td>0.824</td>
<td>0.821</td>
<td>0.36131</td>
</tr>
</tbody>
</table>

Source: Data Analysis

Table 5: Analysis of Variance

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Sum of Square</th>
<th>Mean Square</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4</td>
<td>161.706</td>
<td>40.427</td>
<td>309.683</td>
</tr>
<tr>
<td>Residual</td>
<td>265</td>
<td>34.594</td>
<td>0.131</td>
<td></td>
</tr>
</tbody>
</table>

Sig. F = 309.683; p<0.05

Table 6: Variables in the Equation

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SEß</th>
<th>Beta</th>
<th>T</th>
<th>Sig. T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.408</td>
<td>0.092</td>
<td>-</td>
<td>-4.431</td>
<td>0.000</td>
</tr>
<tr>
<td>X_1</td>
<td>-0.109</td>
<td>0.118</td>
<td>-0.097</td>
<td>-0.926</td>
<td>0.035</td>
</tr>
<tr>
<td>X_2</td>
<td>0.301</td>
<td>0.068</td>
<td>0.225</td>
<td>4.449</td>
<td>0.000</td>
</tr>
<tr>
<td>X_3</td>
<td>0.571</td>
<td>0.133</td>
<td>0.530</td>
<td>4.284</td>
<td>0.000</td>
</tr>
<tr>
<td>X_4</td>
<td>0.310</td>
<td>0.152</td>
<td>0.279</td>
<td>2.038</td>
<td>0.043</td>
</tr>
</tbody>
</table>

Source: Data Analysis

Table 4 indicates that the independent variables yielded a coefficient of multiple regression (R^2) of 0.824 accounting for 82.4% of the variance that evidence the relationship between the independent variables and demand for motor insurance. The table 5 thus shows that the analysis of variance for the multiple regression data produced F-ratio value of 309.683 which is significant at 0.05. In table 6, while the other variables contribute a positive relationship to the demand for motor insurance, the motorists’ risk attitude produced a negative relationship. This result, according to the respondents’ view, shows that many motorists possess poor risk attitude which in turn affect negatively the demand for motor insurance. Among the factors discovered to associate with poor risk attitude of motorists in relation to demanding motor insurance were: low level of risk understanding, inadequate and irregular enlightenment, lack of trust and confidence in insurance companies, among other.

**4.0. CONCLUSION AND RECOMMENDATIONS**

This study has been able to confirm the significant influence of drivers’ risk attitude on the occurrence of risk and thus, the significant but negative relationship that subsist between motorists’ risk attitude and motor insurance demand with the Nigeria’s road network as a research ground for its empirical analysis. However, the study found that drivers’ attitude has a high level of influence on, and contribute hugely to risk occurrence as human element was noted to constitute a large part of road traffic crashes. According to a study conducted by the
Federal Road Safety Commission, Nigeria (2008) on road traffic crashes (RTC); it has shown that human factor constituted about 90% of the RTC (out of which drivers’ actions or reactions make up 80%). The research thus established that many drivers are unconscious of risk occurrence, reckless, careless and restless. This characterizes the poor risk attitude evidenced among commercial vehicle drivers, judging from the respondents’ view. According to a report by RAC (2009), drivers who currently take the pass plus course are offered a financial incentive by some insurance companies in Netherland. It has also been reported that one way of encouraging uptake of such learning could be achieved through rewards of cheaper insurance.

Conclusively, this study reveals that pricing is an essential element of the demand for motor insurance. More so, this study is consistent with others [such as Cummins et a., 2001; Harrington, 2002; Huang & Query, 2007; Grace & Philips, 2008; Thomas & Patricia, 2012; among others]; it presents evidence that advances in regulation of motor insurance pricing via non-tariff technique may have positive impact on the demand for motor insurance which will in turn attract more drivers to approaching insurance companies as well as maintaining risk-free attitude when driving.

Having pondered these findings, this research recommends thus that:

i. Insurance companies in Nigeria are encouraged to unravel the composition of motor insurance tariff to the knowledge of the motorists;

ii. Insurance companies should ensure that there is flexibility in the various motor insurance policies;

iii. Insurance companies and regulators should ensure they provide a convenient payment mode to encourage more patronage for insurance companies;

iv. Insurance companies, regulators and government should create a more awareness frequently on risk control measures and the need for motorists to purchase motor insurance;

v. Government should drive a policy to combat poor risk attitude among motorists and ensure that motor insurance is seen as a need among drivers; and

vi. Periodic enlightenment on road risk situations should be embarked upon to help curtail the number of risk occurrences on our roads

4.1. Research Limitations, Implications and Further Studies

There are a number of limitations to this research study. First, data were gathered from drivers of commercial vehicles, private vehicles and company-use vehicles without considering drivers of special-type of motor vehicles. Secondly, the study was unable to evidence the database of the customers of motor insurance policies in the different strata in different insurance companies in Nigeria. Thirdly, the views of insurance practitioners with respect to motor insurance were not considered.

It is important to note that not too many researches had been done in this regard as this research contribute significantly to the knowledge of motorists in that it educates them of the need to continually take conscious efforts on their attitude to risks and the need to approach insurance companies whenever there is need for motor insurance. It also informs regulatory authorities in Nigeria’s insurance industry of the need to review, on a continuous basis, the motor insurance customers’ database of insurance companies with regards to the number of motor vehicles in Nigeria.

More so, future researches are expected to investigate reasons why many motorists find it convenient to patronize touts; unregistered insurance companies and agents; and the likes in a bid to getting their vehicle insurance. More efforts should be dedicated by future researchers to the composition of the motor insurance tariff in Nigeria.

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56. Training Manual for Road Traffic Injury Prevention (n.d.)


About the Authors

AJEMUNIGBOHUN, S.S. (Mr.) holds a Bachelor’s Degree in Insurance from Lagos State University, Nigeria and Master’s Degrees in Risk Management and Insurance, and Business Administration (Marketing) both from the reputable and top-class University of Lagos, Nigeria. He is a lecturer in the Department of Insurance, Lagos State University, Lagos, Nigeria. He is presently an MPhil/PhD student of Insurance and Risk Management in the Department of Actuarial Science and Insurance, University of Lagos, Nigeria. His areas of teaching and research include insurance service marketing, issues in insurance management, health insurance, transportation insurance and reinsurance. He has published several articles in scholarly Local and International Academic
Journals. He is a member of renowned professional institutes [such as Chartered Insurance Institute of Nigeria (CIIN), Institute of Strategic Management of Nigeria (ISMN), and Nigerian Institute of Management (NIM)].

ORESHILE, S.A. (Mr.) holds a Bachelor’s Degree in Insurance from Lagos State University, Nigeria and Master’s Degrees in Risk Management and Insurance from the top-class University of Lagos, Nigeria. He is presently in the Department of Insurance, Lagos State University, Lagos, Nigeria. His teaching and research areas are insurance practice and underwriting. He has published several articles in scholarly International Academic Journals. He is a member of renowned professional institutes [such as Chartered Insurance Institute of Nigeria (CIIN), and Nigerian Institute of Management (NIM)].
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