



Financial knowledge, financial confidence and risk attitudes: Evidence from selected motor insurance policyholders in Nigeria

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Suggested Citation:

Stephen, A. S., & Pretoria, I. (2022). Financial knowledge, financial confidence and risk attitudes: Evidence from selected motor insurance policyholders in Nigeria. *Global Journal of Business, Economics, and Management: Current Issues*. 12(3), 279-295. <https://doi.org/10.18844/gjbem.v12i3.7168>

Received from July 16, 2022; revised from September 03, 2022; accepted from October 19, 2022.

Selection and peer-review under the responsibility of Prof. Dr. Andreea Claudia Serban, Bucharest Academy of Economic Studies, Romania.

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Abstract

Financial losses from the inactions of motorists culminated in financial anxieties, probably due to financial illiteracy in financial decisions. However, financial decisions are usually made in the course of attaining a high level of personal financial satisfaction. Therefore, this study examined the relationships between financial knowledge, financial confidence and risk attitudes, with specific reference to motor insurance policyholders in Lagos, Nigeria. The study adopted a cross-sectional survey research design. The study population consisted of the total number of registered motorists recorded as of 2019 by the Lagos State Motor Vehicle Administration Agency. Thus, quota and convenience sampling methods were adopted in the questionnaire distribution and collection processes. A structured questionnaire was employed for data gathering. A total of 399 copies of the questionnaire were distributed, of which 287 were found usable. The data processing technique employed was simple frequency percentages and the multinomial logistics regression method. The findings further affirmed that financial knowledge and confidence were significant in attracting reasonable risk attitudes from policyholders.

Keywords: Decisions, expected utility theory, finance, financial knowledge, motor insurance, policyholders;

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1. Introduction

Motor insurance is designed as a financial risk management instrument to guarantee policyholders' peace of mind. It plays a crucial financial role in safeguarding policyholders from financial losses that motor vehicles can cause, ranging from loss of property, medical bills and legal fees to financial loss (Abdalla & Enaji, 2014; Gage et al., 2015). Financial loss consequences that possibly emanate from the inactions of motorists culminate in financial anxiety, probably due to a lack of financial literacy in their finances. Therefore, financial literacy is an embodiment of different concepts, such as confidence, education, decision-making, knowledge, responsibility and competence. The focal point of different studies (such as Dalkilic & Kirkbesoglu, 2015; Lin et al., 2019; Refera et al., 2016; Tennyson, 2011) has been either the ability to employ knowledge or individual personal self-confidence regarding their financial activities. These studies and some other ones have found identical words such as financial confidence, financial knowledge, financial capability, economic literacy, financial education, economic capability and financial competence as representative terms regarding financial literacy.

Information, as regards the personal finances of an individual, is critical to the betterment of such an individual's financial behaviour. Lim et al. (2020) noted that an individual with less knowledge of his/her financial management tends to have a financial problem. As for financial confidence, financial anxiety concerning financial and insurance decisions is taken off an individual's personal financial management to be able to sustain financial satisfaction (Sampath et al., 2019). These financial decisions rest upon the level of risk attitudes of an individual motorist's desire to express in the course of attaining a high level of personal financial satisfaction.

Individual risk attitude is influenced by cognitive and affective factors. Cognitive factors within an individual justify such an individual's knowledge, thoughts, awareness levels, beliefs and qualities linked to situational events. This, in itself, represents the belief or opinion facet of an individual's attitude (Quoquab & Mohammad, 2020; Yu et al., 2016). Affective factors are the representation of such a person's emotional responses, dislikes, likes and desires. It produces an emotional facet of an individual's attitude (Rana & Paul, 2017). However, few studies (e.g., Cohen, 2016; Fazil et al., 2012; Kusev et al., 2017) have offered a holistic investigation of the influence of cognitive and affective factors on risk attitude. Regarding the focus of this study, part of the affective factor is an event of individual loss experience and the satisfaction of its financial remedy through some means other than insurance. Then, the questions that come to mind are: what roles do insurance companies and their regulators play in redirecting individuals' attitudes to seek institutional support in the event of a loss? And why are risk attitudes of most Nigerians not tending towards risk consciousness of motoring risk? It is therefore pertinent to note that risk consciousness is at the very heart of an individual's insurance-buying behaviour (Botha, 2017; O'Donoghue, & Somerville, 2018).

The study made known that detailed financial knowledge improves risk attitude (Park & Yao, 2015). Other studies (Arifin & Soleha, 2019; Kunreuther et al., 2013; Hudik et al., 2014) have also shown that inadequate knowledge of the qualities of modern financial plans by an individual or group can cause poor attitude to risks. However, insufficient understanding and confidence in financial products, over the years, have adversely affected the risk attitude of individual entities (Lusardi, 2019). More so, limited knowledge of financial concepts can create a poor risk attitude and, then, lead to poor utilisation of financial and economic services (Farah & Dewi, 2018). However, financial services (such as insurance) have suffered from limited knowledge, understanding and confidence among insuring populace in Nigeria, which had created a poor perception of its peculiarity (Ajemunigbohun & Adeoye, 2018; Badru et al., 2013).

1.1. Literature review

Financial knowledge is ascribed to an individual's understanding of pecuniary issues. The basic issues in a day-to-day individual's finances embrace issues such as saving, investment, credit, interest rates, inflation, pricing of consumer products and managing risks, among others (Jaya & Pralhad, 2021; Nguyen et al., 2017; Swiecka et al., 2020; Yahaya et al., 2017). However, some studies (Huston, 2010; Lin et al., 2019; Refera et al., 2016; Santos & Tavares, 2020) described financial literacy as the knowledge and confidence in the financial actions of the individual; the adequate knowledge and confidence to come up with financial decisions or individual's attitude regarding the use of pecuniary instruments and their confidence in monetary activities performed. More so, to make a formidable pecuniary decision, individuals ought to have the essential financial knowledge and confidence to apply their knowledge. However, the degree to which an individual is financially knowledgeable is important to financial decision-making. To this end, low levels of financial knowledge can lead to a higher risk of financial exposure among older people, which causes anxiety in some quarters (Atlas et al., 2019; Dalkilic & Kirkbesoglu, 2015) and lower risk consciousness.

Accordingly, financial knowledge is said to be evaluated by individual objectivity or subjectivity. While objective financial knowledge is seen as individual knowledge concerning making reasonable financial decisions, subjective financial knowledge relates to an individual's beliefs and perceptions of his/her skills and knowledge (Hadar et al., 2013; Mohammad & Katayon, 2018). Lusardi and Mitchell (2014) specify three basic aspects to quantifying objective financial knowledge, which include numeracy and capacity to estimate interest rates, knowledge of inflation and risk diversification. Recent studies (Atlas et al., 2019; Kramer, 2016; Porto & Xiao, 2016) regarding confidence biases in individuals' assessments of their financial competencies have shown that many individuals misjudge their financial abilities and confidence. However, in situations of overconfidence, individuals tend to be associated with numerous risk attitudes that have some detrimental financial health implications (Aristel & Gallo, 2021).

Risk is defined as a situation where the outcome is uncertain and there exists a possibility of loss (Arunajatesan & Viswanathan, 2017). According to Egerue (2017), risk is described as the deviation of future outcomes from the expected or predicted values. A risk is an undesirable event with either a positive or negative impact on specific objectives (Rejda & McNamara, 2014). However, attitude is defined as an individual's disposition to react with a specific degree of favour or disfavour (Taofeeq & Adeleke, 2019). Therefore, a risk attitude is described as an individual's enlightenment towards either avoiding or preferring risk when deciding on how to proceed in the circumstances embedded with the uncertain outcome (Glanz et al., 2016). Risk attitude functions as an individual's perception of risk with the tendency to experience an adverse event (Lippi et al., 2018). Hence, a risk attitude is a projection of risk aversion or risk-seeking behaviour. The risk attitude can be managed by purchasing a motor insurance policy.

Motor insurance is said to protect insurers' risk of financial loss against an accident (Olowokudejo et al., 2020). According to Zerou (2016), it is a contract between the insured and the insurer in which the insured agrees to pay a premium and the insurer agrees to pay losses as per the policy. It was further simply put as the protection against the risk of an accident on a property (covering accident damage, motor fire and theft), liability (covering third-party legal responsibility to others' property damage or bodily injury) and medical coverage and death (taking care of emergency medical expenses, cost of a funeral or the agreed sum insured life in case of death). According to Falegan (1991), as cited in Onafalujo et al. (2011), motor insurance is said to make provisions for coverage against loss or damage to the third party arising from the use of a vehicle. It is always grouped according to the vehicle usage, 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 (Nyce, 2007). Thus, some of the general regulations, according to Akintayo (2004), are said to include the

following: value of vehicles, period of insurance, policy cancellation, no claim discount, vehicles paid up and vehicle hire under contract for not less than 12 months and not being for a hire purchase contract.

Expected utility theory (EUT) was formulated in the 18th century by Bernoulli (1738), and later developed, nurtured and axiomatised in the mid-20th century by Von Neumann and Oskar (1944) to deal with events of quantifiable risk. Bernoulli's introduction of the EUT was mainly to resolve predicaments by employing the expected value paradox posed by Petersburg. Bernoulli achieved the paradox's resolution by infusing the logarithmic utility function of wealth, characterised mainly as 'diminishing marginal utility'. This theory is based on the rationality of individual approaches to judgment-making within the context of objective risk. The basic ideology behind its emergence was the desire to define people's or peoples' rational thinking and behavioural attitudes when exposed to risky situations. Friedman and Savage (1948), as cited in Schiliro (2017), reiterated their remarks concerning the behaviour of individual agents in selecting among possible alternatives encompassing risk in circumstances where an individual unit behaves as though (i) it wields an uninterrupted set of desires; (ii) it selected largest utility of the anticipated income among all alternatives involving risks; (iii) the function depicting the money income drawn from the utility has all properties, including (a) utility increases with income, i.e., money income where positive extra utility is achieved; (b) it exhibits convex status (i.e., decreasing marginal utility describing incomes below and concave between a pinpointed income and other huge income) and convex depicting greater incomes (i.e., diminishing slight utility of income for all monumental incomes); and (iv) most consumers seem to wield incomes that shape them within the utility function for which marginal utility is declining.

However, the work of Friedman and Savage was not without criticism. Their postulation concerning the nexus between insurance and financial speculation was intensely criticised by Markowitz (1952), as cited in Oliver (2018). Under an EUT, insurance purchase serves as a desire between doubtful misfortune that happens alongside a likelihood of not being insured and an evidential status like a premium payment (Manning & Marquis, 1996 as cited by Nyman, 2020). This theory presumes demand for insurance reflects people's risk aversion, indicating that the more risk-averse an individual consumer is, the more insurance coverage he will purchase (Babcock, 2015). According to Nyman (2020), the poor would not have adequate access to financial resources and time to save for an unforeseen event without insurance. According to Babcock (2015), insurance estimation is observed under an expected utility maximisation since the utility function is concave in the wealth/income curve when trying to decide in a situation of uncertainty.

In his work, Zurita (2005) has argued that, under an objectivist explanation, the EUT presupposes that an economic agent has sufficient knowledge of the probabilities of all relevant events before he can make a rational choice. Furthermore, Lusardi and Mitchell (2014) found that an increase in the level of financial literacy will lead to less deviation in the expected utility. EUT also assumes that decision-makers will be able to make rational decisions if they have knowledge about the available choices and use that knowledge (Organization for Economic Cooperation and Development, 2013). In other words, decision-makers must be financially knowledgeable and confident regarding the expected utility of their choices.

1.2. Related studies

Several surveys have been devoted in both Nigeria and other countries of the world to identify financial knowledge and financial confidence in insurance and how they are concerning policyholders' risk attitudes towards motor insurance (e.g., Akhter & Hoque, 2022; Aren & Zengin, 2016; Cupak et al., 2020; Han & Xiao, 2018; Huzdik et al., 2014; Mahdzan et al., 2017).

Nguyen et al. (2017) conducted their study on the perceived and actual effects of financial knowledge, concerning regular personal savings in Vietnam. The study employed a cross-sectional survey design with a sample size of 240 participants among commercial bank customers in 12 branches of 4 banks in Ho Chi Minh City, Vietnam. A structured questionnaire was adopted for information gathering. The study adopted the logistics regression technique in the analysis of data collected. In the end, the study established that actual financial knowledge was statistically significant and had a positive relationship with the regular savings of commercial bank customers. The study recommended that high educational projections in relationships with financial knowledge, risk tolerance and personal savings should be embraced.

Mudzingiri et al. (2018) embarked on a study aimed at evaluating the relationship between financial behaviour, confidence, risk preference and financial literacy, with specific attention to university students in South Africa. The study employed structured questionnaire using a convenience sampling technique of 191 respondents. A *t*-test and OLS regression model as analytical techniques were adopted in the data analysis. The study established that the risk preference index, financial literacy perception index and confidence significantly influenced the financial behaviour of the university students.

In a study carried out by Arifin and Soleha (2019), relationships between overconfidence, attitudes toward risk and financial literacy were evaluated, concerning the Indonesian Stock Market. The study gathered data from 133 stock investors in the Capital Market Gallery of the Indonesian Islamic University of Yogyakarta to be able to establish a positive relationship between investors' attitudes towards risk and overconfidence. The study contributed to behavioural finance in emerging capital markets, especially in the area of overconfidence.

He (2020) research was hinged on the relationship between risk attitudes, financial knowledge and commercial life insurance needs, with a specific focus on the 2015 China Household Finance Survey. The data collected were among 29 provinces in more than 350 cities and 1,048 communities. The study constructed a Probit and Tobit model, which established that families with a risk-averse nature tend to reduce their patronage of life insurance, and a high level of financial knowledge will significantly increase family life insurance participation. The study finally suggested financial knowledge campaign to attract the development of China's commercial life insurance.

Mudzingiri (2021) examined the impact of financial literacy on risk-seeking and patient attitudes of students at the University of the Free State in South Africa. The study collected data from a sample of 192 students with the adoption of a structured questionnaire. The study employed both descriptive and inferential statistics in the data analysis. The study established that structural behavioural errors were significant for the risk preference and time preference task choices. It further stated that an increase in financial literacy creates an association with risk-seeking and patient attitudes among university students.

1.3. Purpose of the study

There seems to be no acclaimed research work to measure insureds' knowledge and confidence of motor insurance policyholders in the world and Nigeria in particular. The study, therefore, proposes an examination of the nexus between financial knowledge, financial confidence and risk attitudes of motor insurance policyholders in Nigeria.

2. Materials and methods

2.1. Participants

This study employed a survey research design anchored on a quantitative method to give an improved view of critical decisions integral to the purchase of motor insurance. This design thus assisted in planning and executing the study in a manner to obtain planned outcomes and created an association with the real-world scenario (Creswell & Creswell, 2018; Gray, 2017). The aggregate members comprising the totality of subjects for the study consisted of 704,828 motorists registered in Lagos State in the year 2019 (Motor Vehicle Administration Agency, 2019). Lagos state was a choice because it housed the highest number of motor insurance policyholders in Nigeria in terms of volume of business, premium income generated and total claims incurred (Nigerian Insurers Association, 2019). The sampling method adopted was convenient and proportionate. A sample size of 399 was determined with the inclusion of the possibility of non-response and non-returning of survey instruments distributed to the various participants (Israel, 2013).

2.2. Data collection instrument

The data collection instrument selected for this study was a questionnaire, being a primary source method. The choice of the survey method was due to its suitability to the chosen research design, its costless nature, huge sample coverage and its simplicity in distribution (Cooper & Schindler, 2014; Kothari & Garg, 2016). The survey instrument was divided into two divisions made up of sections A and B. For section A, the bio-data of the participants were stated, while section B is designed concerning the variables in the study.

2.3. Analysis

The study observed tests of validity comprising construct, content and predictive. While the construct validity was designed concerning previous literature, content validity took cognizance of the details of the survey instrument, and the predictive validity took a review of the findings from other related participants (Booth et al., 2016). Also, the reliability test was conducted with a Cronbach's alpha of 0.814 for financial knowledge and 0.713 for risk attitude. These outcomes were in line with statistical inferences of the validity of the scale and the sacrosanctity of internal consistency.

2.3.1. Model specification

The equation for the model is estimated in terms of the logit of the outcome, which is a comparison of a particular category to the reference category, both denoted by π_j here.

$$\ln\left(\frac{\pi_k}{\pi_k}\right) = \alpha_j + \beta_j X \quad (1)$$

The natural log of the ratio of the two proportions is identical to the logit in concrete logistic regression, where $\ln\left(\frac{\pi_k}{\pi_k}\right)$ replaces $\ln\left(\frac{\pi}{1-\pi}\right)$, and is sometimes regarded as the generalised logit. The model changes from the logistic representation in which the contrasts are all estimated side by side inside the same model. The k subscript on both the intercept (α_k) and the slope (β_k) is evidence that there exists an intercept and a slope for the contrast of each category to the reference category (Senyefia et al., 2019). Odds ratios for each coefficient (for manipulating the difference of one category measured from the reference category) are calculated as always, with $OR = e^{\beta_j}$ and represent the odds increase (or decrease) for category k compared with the referent category for each unit increase in X (Abdillah et al., 2019).

The variables of the study were operationalised and modelled in specific terms towards the study objective as expressed below.

Model 1: It explains the relationship between risk attitude constructs and financial knowledge

$$\ln\left(\frac{P(Y=RS)}{P(Y=RN)}\right) = a_0 + a_1FK \quad (2)$$

$$\ln\left(\frac{P(Y=RA)}{P(Y=RN)}\right) = b_0 + b_1FK \quad (3)$$

Model 2: It explains the relationship between risk attitude constructs and financial confidence

$$\ln\left(\frac{P(Y=RS)}{P(Y=RN)}\right) = e_0 + e_1FC \quad (4)$$

$$\ln\left(\frac{P(Y=RA)}{P(Y=RN)}\right) = f_0 + f_1FC \quad (5)$$

Likewise, a_0 , a_1 , b_0 and b_1 are the regression constants.

However, the data analytical technique adopted for the study was multinomial logistics regression. The technique was employed because it connects with the results of polytomous variables whose categorical values were more than two categories. The statistical tool allowed for the identification and comparison of parameter calculations to the response variable's reference category (Asampana et al., 2017). It is thus seen as an extension of the binomial (dichotomous) model (Senyefia et al., 2019).

Ho₁: Financial knowledge has no significant effect on the risk attitudes of motor insurance policyholders in Lagos State, Nigeria

Ho₂: Financial confidence has no significant influence on the risk attitudes of motor insurance policyholders in Lagos State, Nigeria

3. Results

3.1. Descriptive analyses

Table 1. Financial knowledge

Construct	Variables	Scale level					Mean	SD
		SD	D	U	A	SA		
		1	2	3	4	5		
Financial knowledge	I am more comfortable with living a life that does not involve high financial risk thereby buying insurance	7.0	22.6	11.5	48.1	10.8	3.33	1.146
	When making a financial decision like insurance, I am a very careful person	1.4	9.4	10.8	59.2	19.2	3.85	.885
	When it comes to financial spending like insurance, I am financially more conservative	3.8	13.9	10.8	54.0	17.4	3.67	1.040
	Because I believe in luck, my understanding of a financial instrument like insurance is not necessary	18.1	33.1	13.6	22.6	12.5	2.78	1.320

Source: Field survey, 2020.

Regarding financial knowledge, in Table 1, four measuring items include *I purchase insurance to increase my comfort in life*; *being careful when making a decision like insurance*; *my insurance knowledge hasn't encouraged my purchase*; and *insurance is unnecessary because I believe in luck*. On *'I purchase insurance to increase my comfort in life'* (item 23), 29.6% disagreed, 11.5% were indifferent and 58.9% agreed. On *'being careful when making a decision like insurance'* (item 24), 10.8% disagreed, 10.8% were indecisive and 78.4% agreed. On *'my insurance knowledge hasn't encouraged my purchase'* (item 25), 40% disagreed, 15% were undecided and 45% agreed. On *'insurance is unnecessary because I believe in*

luck' (item 26), 53.7% disagreed, 13.9% were indifferent and 32.4% agreed. The respondents' numerous responses on their financial knowledge showed that they were all in agreement with all the statements except for item 26, which gave a dissenting response. Conclusively, it shows that the majority of respondents are aligned with the confirmation of the various financial literacy measuring instruments. This is thus reflected in the mean and standard deviation scores. This shows that respondents' opinions of the survey items were normally distributed and centred around the mean. It further proved that because the means and standard deviation of the various survey items are similar, there are no notable differences in the distribution of the respondents' opinions.

Table 2. Financial confidence

Construct	Variables	Scale level					Mean	SD
		SD	D	U	A	SA		
		1	2	3	4	5		
Financial confidence	I am afraid to make financial decisions like insurance no matter how good I think my decisions are	8.7	26.8	23.0	34.5	7.0	3.04	1.115
	I am not confident in planning my financial budget for buying insurance products for the year	7.7	30.3	20.2	35.9	5.9	3.02	1.100
	I do not feel confident making financial decisions like insurance, even when I have the knowledge to do so	10.1	30.0	15.0	35.9	9.1	3.04	1.195
	I prefer consulting experts in managing my financial losses than doing it by myself	4.5	30.7	15.0	36.2	13.6	3.24	1.159

Source: Field survey, 2020.

Regarding financial confidence, in Table 2, four measuring items include *I am anxious of a financial decision like insurance*; *I do not have confidence in insurance purchase*; *being conservative for any insurance purchase*; and *my insurance purchase is dependent on expert*. On '*I am anxious of a financial decision like insurance*' (item 19), 35.5% disagreed, 23% were undecided and 41.5% agreed. On '*I do not have confidence in insurance purchase*' (item 20), 38% disagreed, 20.2% were indecisive and 41.8% agreed. On '*being conservative for any insurance purchase*' (item 21), 17.8% disagreed, 10.8% were indifferent and 71.4% agreed. On '*my insurance purchase is dependent on expert*' (item 22), 35.2% disagreed, 15% expressed their indecision and 49.8% were in agreement. The numerous items tested by way of simple frequency and percentage on the financial confidence of the respondents showed that they were all in agreement and further supported by their mean and standard deviation scores.

Table 3. Motorists' risk attitudes

Variables	Scale level					Mean	SD
	SD	D	U	A	SA		
	1	2	3	4	5		
People who know me describe me as a cautious person	4.1	5.6	3.5	55.4	31.4	4.04	.974
I associate the word 'risk' with the idea of 'opportunity'	7.3	10.1	7.3	42.5	32.8	3.83	1.200
I am not willing to take any financial risk	9.4	18.5	8.4	36.2	27.5	3.54	1.319
I am willing to take a high financial risk to earn high returns	4.9	14.6	8.4	38.7	33.4	3.81	1.188
I generally look for the safest type of investment even if	2.4	6.3	10.1	49.5	31.7	4.02	.944

that means lower returns for me							
When it comes to investing my money, I would rather be safe than sorry	2.4	6.6	7.0	53.3	30.7	4.03	.929
I have little experience when it comes to investing money in financial dealings	8.4	18.5	3.8	38.7	30.6	3.65	1.311
I rather keep my money in the bank than investing it in any other financial dealings	10.5	21.3	10.1	24.0	34.1	3.50	1.411
I feel comfortable investing my money in financial dealings	7.3	8.4	11.8	51.6	20.9	3.70	1.112
Usually, it takes me a long time to make up my mind on financial matters	5.6	10.1	8.7	48.4	27.2	3.82	1.111
When I consider investments that have an element of risk, I feel quite anxious	4.9	9.1	12.1	56.1	17.8	3.73	1.015
Whenever I am looking for high investment growth, I am willing to accept the possibilities of greater losses to achieve this	7.4	11.1	12.5	38.7	30.3	3.74	1.212

Source: Field survey, 2020.

In Table 3, 12 measuring items were stated in serial numbers 27–38 for a robust and in-depth analysis of risk attitude. Item 27 stating ‘people who know me describe me as a cautious person’ was analysed. While 86.8% agreed, 3.5% were indecisive and 9.7% disagreed. Item 28 stating ‘I associate the word ‘risk’ with the idea of ‘opportunity’ was analysed. While 17.4% disagreed, 7.3% were undecided and 75.3% expressed their agreement. Item 29 stating ‘I am not willing to take any financial risk’ was analysed. While 27.9% expressed their disagreement, 8.4 were indifferent and 63.7 displayed their agreement. Item 30 stating ‘I am willing to take a high financial risk to earn high returns’ was analysed. While 19.5% disagreed, 8.4% were undecided and 72.1% agreed. Item 31 stating ‘I generally look for the safest type of investment even if that means lower returns for me’ was analysed. While 8.7% expressed displeasure, 10.1% were neutral and 81.2% declared their acceptance. Item 32 stating ‘when it comes to investing my money, I would rather be safe than sorry’ was analysed. While 9% disagreed, 7% were undecided and 84% agreed. Item 33 stating ‘I have little experience when it comes to investing money in financial dealings’ was analysed. While 26.9% were in disagreement, 3.8% were indifferent and 69.3% expressed their agreement. Item 34 stating ‘I rather keep my money in the bank than investing it in any other financial dealings’ was analysed. While 31.8% disagreed, 10.1% were undecided and 58.1% agreed. Item 35 stating ‘I feel comfortable investing my money in financial dealings’ was analysed. While 15.7% disagreed, 11.8% were undecided and 72.5% agreed. Item 36 stating ‘Usually it takes me a long time to make up my mind on financial matters’ was analysed. While 15.7% expressed their disagreement, 8.7% were indifferent and 75.6% displayed their agreement. Item 37 stating ‘when I consider an investment that has an element of risk, I feel quite anxious’ was analysed. While 14% disagreed, 12.1% were undecided and 73.9% agreed. Item 38 stating ‘whenever I am looking for high investment growth, I am willing to accept the possibilities of greater losses to achieve this’ was analysed. While 18.5% exhibited their disagreement, 12.5 were neutral and 69% displayed their disagreement. Conclusively, it shows that the majority of the entire respondents aligned with the confirmation of various items measuring risk attitude. This is thus reflected in the mean and standard deviation scores. This shows that respondents’ opinions of the survey items were normally distributed and centred around the mean. It further proved that because the means and standard deviation of the various survey items were similar, there are no notable differences in the distribution of the respondents’ opinions.

3.2. Hypothesis testing

Table 4. Multinomial regression result for financial knowledge versus risk attitude

Pseudo R-squared								
Cox and Snell								0.021
Nagelkerke								0.033
McFadden								0.011
Likelihood ratio tests								
Effect	Model fitting criteria			Likelihood ratio tests				
	-2	Log-Likelihood	of	Chi-square	Df	Sig.		
	Reduced Model							
Intercept	195.164			1.437	2	0.530		
Financial knowledge	165.047			6.210	2	0.031		
Parameter estimates								
Risk attitude constructs ^a	B	Std. error	Wald	Df	Sig.	Exp(B)	95% confidence interval for Exp(B)	
							Lower bound	Upper bound
Risk-averse	Intercept	-0.186	1.698	0.006	1	0.929		
	Financial knowledge	-0.357	0.518	0.416	1	0.524	0.538	0.127 2.187
Risk-seeking	Intercept	-1.411	1.085	1.213	1	0.267		
	Financial knowledge	0.621	0.319	4.356	1	0.039	1.891	1.051 2.153

a. The reference category is risk neutral.

Source: Researcher's computation, 2020.

The R^2 statistics (Cox & Snell and Nagelkerke and McFadden R^2) as explained by the fitted model implies that about 1.1%–3.3% of the total variation in the measure of risk attitude is explained by the variations in financial knowledge. As regards the variables in the parameter estimate, a significant value improves the model and indicates a positive effect. The findings show that financial knowledge insignificantly predicted ($= -0.357$, $SE = 0.518$, $p > 0.05$) risk-averse but significantly predicted ($= 0.621$, $SE = 0.319$, $p < 0.05$) risk-seeking. The likelihood ratio tests of the multinomial regression indicate that there is a significant association between the predictor variable (financial knowledge) and the response variable (risk attitude) ($\chi^2(2) = 6.210$, $p < 0.05$). As a result, it can be concluded that financial knowledge has a significant effect on policyholders' risk attitudes in Lagos, Nigeria.

Table 5. Multinomial regression result for financial confidence versus risk attitude

Pseudo R-squared								
Cox and Snell								0.025
Nagelkerke								0.032
McFadden								0.017
Likelihood ratio tests								
Effect	Model fitting criteria			Likelihood ratio tests				
	-2	Log-Likelihood	of	Chi-square	Df	Sig.		
	Reduced Model							
Intercept	159.146			1.374	2	0.503		
Financial confidence	165.074			7.125	2	0.026		
Parameter estimates								

		B	Std. Error	Wald	Df	Sig.	Exp(B)	95% Confidence interval for Exp(B)	
								Lower bound	Upper bound
Risk-averse	Intercept	-0.168	1.896	0.008	1	0.929			
	Financial confidence	-0.375	0.588	0.460	1	0.524	0.688	0.217	2.178
Risk-seeking	Intercept	-1.175	1.058	1.234	1	0.267			
	Financial confidence	0.688	0.271	4.653	1	0.031	1.989	1.065	3.715

a. The reference category is risk neutral.

Source: Researcher's computation, 2020.

The R^2 statistic (Cox & Snell and Nagelkerke and McFadden R^2) as explained by the fitted model implies that about 1.7%–3.2% of the total variation in the measure of risk attitude is explained by the variations in financial confidence. As regards the variables in the parameter estimate, a significant value improves the model and indicates a positive effect. The findings show that financial confidence insignificantly predicted ($= -0.375$, $SE = 0.588$, $p > 0.05$) risk-averse but significantly predicted ($= 0.688$, $SE = 0.271$, $p < 0.05$) risk-seeking. The likelihood ratio tests of the multinomial regression indicate that there is a significant association between the predictor variable (financial confidence) and the response variable (risk attitude) ($\chi^2(2) = 7.125$, $p < 0.05$). As a result, it can be concluded that financial confidence has a significant effect on policyholders' risk attitudes in Lagos, Nigeria.

4. Discussion

From the empirical analysis conducted and the testing of hypotheses carried out, this study has been able to achieve the research objectives and thus provide answers to the research questions raised. The result shows that financial knowledge among motor insurance policyholders in Nigeria has a significant but negative relationship with their risk attitudes, thereby invalidating null hypothesis one. The result further justifies the relationship between financial knowledge and the risk-seeking behaviour of motorists in Nigeria. This result explains the inadequacy of insurance knowledge among the motor insurance policyholders in Nigeria; their low-level insurance knowledge proves an inverse relationship to their risk-averse nature. The result is divergent from the previous studies of He (2020), Kubitz et al. (2019), Lim et al. (2020) and Sanjeewa and Hongbing (2019). Kubitz et al. (2019) claimed that uncertainty regarding insurance payouts, as an outcome of insurance contract complexity, affects the decision-making of financially illiterate people, which can be driven by people's risk aversion. Lim et al. (2020) stated that a high level of financial knowledge will significantly increase family life insurance participation.

The result also indicates that financial confidence among motor insurance policyholders in Nigeria has a significant but negative relationship with their risk attitudes, thereby invalidating null hypothesis one. The result further justifies the relationship between financial confidence and the risk-seeking behaviour of motorists in Nigeria. This result explains the mistrust and less confident nature of insurance, as a financial instrument among the motor insurance policyholders in Nigeria, their low-level insurance confidence proves an inverse relationship to their risk-averse nature. The result is divergent from the previous studies of Arellano et al. (2014), Arifin and Soleha (2019), Mudzingiri (2021) and Lee (2012). While Arifin and Soleha (2019) maintained behavioural finance in emerging capital markets, especially in the area of overconfidence. Lee (2012) claimed that the insurance contract statements and languages'

complexities, cognitive competencies and knowledge imperfection of insurance conditions affect an individual's confidence in insurance contract mechanisms.

5. Conclusion

The findings from the study have shown the significance of financial knowledge and financial confidence on motorists' risk attitudes. The findings of the study, if adopted, will lead to a high level of knowledge and confidence in financial products such as insurance and thus, create reasonable risk attitudes among motor insurance policyholders. The findings further affirmed that financial knowledge and confidence were significant in attracting reasonable risk attitudes from policyholders. Thus, the study's outcome may be considered useful by policymakers and motor insurance practitioners in incorporating simplicity into an insurance contract that will affect positively the decision-making of financially illiterate people, which can be driven by their level of risk aversion. Therefore, expanding the individuals' financial knowledge base and confidence in insurance contract mechanisms concerning attracting reasonable motorists' risk attitudes will provide for insurers' trust, confidence, honesty, reliability and competence in the heart of the insuring public.

To properly justify the findings of this study, the study recommended that motor insurance providers should ensure that motor-related losses and damages are speedily addressed and attended to increase the risk aversion of their motor insurance policyholders and thus avoid motorists' insurance premium loss, as stipulated in the EUT. Also, premium income generation of the motor insurance providers can be further increased if an appropriate financial literacy campaign is embarked upon frequently, and to further avail motorists of the valuable benefits they tend to gain in the purchase of motor insurance policies, as this will have positive effects on their risk consciousness and further bolster the future underwriting capacity of their insurer.

This study contributes to knowledge in that it sensitises the motor insurance providers to the need to design motor insurance contracts with reasonable premiums in a bid to attract financial confidence in the areas of patronage for the policy. This study benefits the motor vehicle ensuring communities in terms of an increase in confidence level, effective claims delivery, high-level insurance knowledge, reasonable financial decision-making and the likes. The study suggests that further research work should focus attention on the nexus between financial attitudes, financial behaviour and risk attitudes of the motor insurance policyholders in Nigeria. Lastly, future research work could direct attention to insurance literacy issues concerning risk appetites among transport business owners or operators in Nigeria.

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