Insurance, A Risk Transfer Mechanism: An Examination Of The Nigerian Banking Industry

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Abstract: The study examines insurance as a suitable risk transfer mechanism for managing risks associated with the Nigerian banking industry. It explores risk and insurance; examines risks and features of insurable risks; outlines banking risks; highlights benefits of insurance to banks; and identifies banking risks and types of insurance banks purchase in Nigeria. The study adopts quantitative approach using the literature, and survey of 20 commercial banks in Nigeria selected through random probability sampling. Structured questionnaires were administered to 200 participants, 10 each from the 20 banks, selected through purposive sampling. The study concludes that banks purchase insurance to manage risks in the Nigerian banking industry; insurance is beneficial to banks and the economy; and insurance enhances banks' operations in the Nigerian banking industry. Implications for practice suggest that: insurance, if adequately arranged, serves as security and stimulus to banks; insurance facilitates spread of risk and stimulates banks' operations; and insurance reduces loss through risk prevention and reduction education. Thus, the study highlights the suitability of insurance for managing risks associated with banks' operations in Nigeria.

Keywords: Insurance, Risk management, Bank risks, Banking industry, Nigeria

I. Introduction

Risk is integral to opportunities and threats which may impact expected outcome (Kaye, 2009; Lowe, 2010). The recent financial and economy meltdown impact the world economy, resulting to bankruptcy of nations and collapsed of several internationally renowned institutions (Ellaboudy, 2010; Ngowi, 2010; Terazi and Senel, 2010; Aly and Strazicich, 2011). The global crisis also impact negatively on Nigeria economy. The Central Bank of Nigeria (CBN) identifies eight major factors responsible for serious negative impacts on the Nigerian financial system. The factors include: macro-economic instability caused by large and sudden capital inflows; major failures in the corporate governance at banks; lack of investors and consumer sophistication; inadequate disclosure of transparency about financial position of banks; critical gaps in the regulatory framework and regulations; uneven supervision and enforcement; unstructured governance and management process at the CBN; and weaknesses in the business environment (CBN, 2010). The Nigerian financial sector is dominated by the banking sector. Risk exists when there is uncertainty and more than one possible outcome. Risk entails both upside and downside eventualities (Raz and Hillson, 2005; Hillson and Murray-Webster, 2007; Erben, 2008). Risk and business activities are inseparable; hence, banks are in business to bear risk for a price (Apostolik et al., 2009). The size of a business risk varies with the extent of exposure; however, the exposure creates the motivation to manage risks. It is, therefore, important that risks associated with banks operations should be effectively managed. Banks' risks can be effectively managed by purchase appropriate insurances, because insurance is a risk transfer mechanism (Skipper and Kwon, 2007; Thoyts, 2010). The questions to be addressed in the paper include:

- a) Do banks purchase insurance to manage risks in the Nigerian banking industry?
- b) Is insurance beneficial to banks in Nigeria?
- c) Does insurance (purchase) enhance banks operations?

To address these questions, the paper is organised as follows. The next section outlines scope, objectives and significance of study. Section three focuses on theoretical framework and review of literature. It examines insurance as a risk transfer mechanism; states banking and banking risks; outlines benefits of insurance (purchase) to banks; and develops the hypothesis. Section four considers methodology of study. Section five presents the findings and discussions; while, the last section highlights conclusions and recommendations.

II. Scope, Objectives And Significance Of Study

The study examines insurance as a suitable risk transfer mechanism for managing risks associated with the Nigerian banking industry. Specifically, the objectives of the study are:

- a) To explore risk and features of insurable risks;
- b) To examine insurance as a risk transfer mechanism;

- c) To outline benefits of insurance to banks; and
- d) To identify banking risks and types of insurance policies purchase by banks in Nigeria.

The study is relevant to the existing body of knowledge. The literature reveals that there is no published study on the use and purchase of insurance to manage risks associated with the Nigerian banking industry. Moreover, the few available studies on insurance in Nigeria focused on individuals' attitudes towards insurance services, life insurance purchase, and social health insurance schemes (Arodiogu, 2005; Omar, 2007; Yusuf, 2006; Yusuf *et al.*, 2009). Hence, the study intends to fill these gaps and contribute to knowledge on the use and purchase of insurance by banks to manage risks in the Nigerian banking industry.

III. Theoretical Framework And Review Of Literature

1 Insurance, A Risk Transfer Mechanism

Insurance is a mechanism through which firms can reduce negative financial consequences of an uncertain event or possible financial loss. Insurance reduces the impact of financial loss on firms, including banks. Blunden and Thirlwell (2010) describe insurance as a contract of fortuity which depends on occurrence of something that is not foreseen, and over which the insured ostensibly has no control. Insurance is a risk transfer mechanism that facilitate shifting the cost of a risk away from he (insured) who runs it to an external party (insurer) in exchange for payment of premium (Marshall, 2001). Insurance is a financial contract, and a way of dealing with consequences of risk perceived as external (Levitas, 2005; Adam et al., 2006). Pooling of risk, risk transfer, and law of large numbers are important features of insurance. Pooling of risk entails grouping of homogenous exposures to provide an accurate prediction of future losses; while risk transfer entails shifting of risk from the insured to the insurer (Mutenga and Staikouras, 2007). In addition, insurance works on the basis of the law of large numbers. Law of large numbers advocates that as the number of participants gets very large, the average outcome approaches (Bank, 2004). Mehr and Cammack (1961:33) emphasise the importance of the law of large numbers in their definition of insurance as "a social device for reducing risk by combining a sufficient number of exposure unit to make their individual losses collectively predictable". Similarly, Knight (1921) demonstrates that the law of large numbers enables the insurance industry to manage its risk exposures with greater certainty. Put differently, the law of large numbers is a form of economies of scale and a monetised instrument to compensate and manage risk exposure at a reduced cost by spreading of contingent risks cost among numerous actors (Knight, 1921; Jarvis, 2009). The law of large numbers, therefore, facilitates the possibility of externalising risk through insurance by strengthening a mechanism for compensating financial loss undertaking by insurance companies (Levitas, 2005; Skipper and Kwon, 2007; Stein, 2007). This is possible because insurers have a more diversified portfolio of exposures which help to reduce the effect of unexpected losses. In essence, insurance facilitates transfer of economic risk to the insurer, while the actual risk remains with the insured (Coyle, 2002; Gordon, 2003).

Insurance support economic activities by generating huge cash flows required to promote economy growth and development (Hancock *et al.*, 2001). It also contributes to economy development by way of financial services intermediation and employment creation (Ward and Zurbruegg, 2000; Liedtke, 2007). Moreover, economic growth is associated with thriving of insurance markets (Outreville, 1990; Skipper, 1997). Insurance contributes to economy growth and development by: promoting financial stability and reduces anxiety; facilitating trade and commerce; supporting government security programs; mobilising saving; promoting effective and efficient risk management; promoting effective and efficient capital allocation; and encouraging risk reduction and loss minimisation (Skipper, 1997; Sigma, 1999; Enz, 2000; Ward and Zurbruegg, 2002; Han *et al.*, 2010). Insurance is a form of risk management tool. It is a suitable risk transfer mechanism for managing and underwriting risks associated with banks operations. Banks are facing variety of new risks which emanate from the modern society (Arnoldi, 2009); hence, insurers underwrite banks' risks in the Nigerian banking industry in exchange for premium (Ericson *et al.*, 2003; Ericson and Doyle, 2004a).

Basically, risk management is identification, measurement, control, financing, and transferring of risks which threaten viability of banks (Feridun, 2006; Lowe, 2010). Risk management strategies available to banks in the Nigerian banking industry include: reduction of negative effect of risk exposures; risk avoidance; transferring of risk to another party, e.g. to insurance company; and acceptance of some or all of the consequences of risk exposures (Feridun, 2006; Ale, 2009). Consequently, insurance is a risk management strategy, suitable for managing risks in the Nigerian banking industry. However, not all risks are insurable. An insurable risk refers to risk that is acceptable for insurance by an insurer. This is because insurance is limited to areas and risks where the prospects of loss can be calculated, or where the contingent cost of insurance exposure can be reasonably estimated (Jarvis, 2009; Jemil *et al.*, 2010). Insurability is, therefore, a litmus test for establishing risks that are acceptable by insurers for insurance purpose (Beck, 2000; Ericson and Doyle, 2004b). Generally, features of insurable risks include: the loss or outcome of adverse events insured against must be capable of being measured in financial terms; the insured must possess insurable interest, i.e. right to insure recognised at law, in the event or risk covered by the insurance; the happening of the event must be accidental in

nature; the insurance contract must not be against public policy or the law; and there must be sufficient number of similar exposures (Skipper and kwon, 2007; Stein, 2007; Boland *et al.*, 2009; Thoyts, 2010).

2 Banking and Banking Risks

Banks services are essential facilitators of economic activities; hence, risks which may compromise the survival of the banking industry should be effectively managed. The Nigerian banks operate under the legal framework of the Banks and Other Financial Institutions Decree (BOFID) 1991, as amended. Risk management is a constant challenge to the banking industry. Moreover, risk taking by banks has increased due to increasingly dynamic nature of banking operations (Feridun, 2006). It is therefore paramount that banks must be aware of their exposures, identify who owns or takes responsibility for managing those exposures, and encourage a culture where people are willing to do so (Carvalho, 1999). Broadly, banking risks may be classified into four: credit risk, market risk, operational risk, and performance risk (Kanwar, 2005; Skipper and kwon, 2007; Apostolik *et al.*, 2009). Credit risk is the potential loss a bank would suffer if a bank borrower (also known as the counterparty) fails to repay the loan and interest in accordance with the agreed terms (Fadun, 2011). Market risk is the potential loss due to changes in underlying economic factors such as interest rates, exchange rates, and equity and commodity prices (Fadun, 2011). Operational risk is the risk of loss resulting from costs incurred through mistakes or errors during business transactions (Fadun, 2011). Performance risks constitute losses resulting from the failure to properly monitor employees or to use appropriate methods, including model risk, liquidity risk, business risk, reputational risk (Fadun, 2011).

A Bank risks can be finance through: transfer of risk or its financial responsibility to a third party, contractually; retaining financial responsibility for the risk; transfer financial responsibility for risks to insurance companies; and combination of insurance transfer, and retention of risk (Banks, 2004; Fone and Young, 2005; Feridun, 2006; Ale, 2009; Jorion, 2009). Insurance contributes to economic growth by enhancing bank intermediation activity (Zou and Adams, 2006), thereby complementing the banking industry (Omoke, 2011). Insurance is an important risk financing technique. It is a suitable mechanism for spreading the financial impact on banks, thereby reducing the cash flow volatility of the banking industry in Nigeria (Fone and Young, 2005; Skipper and kwon, 2007). This implies that insurance is well suited for risks in the Nigerian banking industry where the possibility of loss is low and severity of potential loss is high (Dickson, 2000; Dorfman, 2003; Hamid, 2010).

3 Benefits of Insurance (Purchase) To Banks

Insurance supports banking industry intermediation activity (Zou and Adams, 2006). Banks benefit from post-loss financing mechanism of insurance services (Zou et al., 2003; Zou and Adams, 2008). Similarly, bank can also benefit from insurance through: reduction of uncertainty, insured losses indemnification, benefiting from other risk management services provided by insurers, and tax-deductible premiums consideration (Rejda, 2011). Mayers and Smith (1982) note that the purchase of insurance can help managers in highly leveraged companies avoid the cost of financial distress and reduce agency cost by indemnifying holders of debt contracts against ex-post dilution in the value of their fixed claims. Likewise, Grillet (1992) and Grace and Rebello (1993) argue that insurance purchases may perform an important role in ascertaining the quality of corporate financial condition to prospective investors and other stakeholders. For example, insurance can help secure funding for the replacement of necessary manufacturing and other facilities damaged resulting from the insured events, such as fire, floods, theft, and storm. Hence, physical asset-based insurance is a rational post-loss financing option that highly leveraged companies can employ to mitigate the underinvestment incentive (Mayers and Smith, 1982; MacMinn. 1987). Likewise, in the presence of market imperfections, the purchase of appropriate insurance can enhance banks value by: lowering of firm's cost of financial distress, directly or indirectly; mitigating the assets substitution and underinvestment problems; and influencing managers to invest in positive loss control and safety projects (Adams et al., 2011). Consequently, insurance not only reduces the risk of bankruptcy and financial distress cost; but also lower the incidence of cash flow shortfalls (following a major accidental loss) that could trigger a reduction in banks value-enhancing investments (Froot et al., 1993; Zou and Adams, 2008).

The major reasons why firms purchase insurance include: legal compulsion - where the insurance purchase is statutorily required; risk aversion - where the firm perceived that the potential loss is financial unacceptable; contractual obligation - where the firm entered into contracts which required insurance; managerial self interest; cost of financial interest - contingency plan to rejuvenate the firm in the event of a huge loss; and market imperfection (Hendrickson and Nichols, 2001; Skipper and Kwon, 2007; Thoyts, 2010). Awareness of the importance of insurance as a risk transfer mechanism has increased over the years. Financial liberalisation and financial integration have also contributed to rapid growth of the insurance market activities (Adams *et al.*, 2006; Brainard, 2006). Ultimately, banks purchase insurance because of its potentially benefits, because: it reduces the costs associated with conflicts of interest between owners and managers, and between

shareholders and bondholders; it allocates risk to the firm's claimholders who have a comparative advantage in risk bearing; it reduces expected bankruptcy costs: it reduces the firm's tax burden; it provides real service efficiencies in claims administration; it helps to monitor compliance with contractual provisions; its facilitates corporate taxation benefits; and it reduces the cost of regulatory scrutiny (Mayers and Smith, 1982; 1990; Ashby and Daicon, 1998; Hoyt and Khang, 2000; Hoyt and Liebenberg, 2011).

4 Hypothesis Statement

The foregoing have established that existence of risks in banking operations; and the suitability of insurance as a risk management and financing mechanism for managing risks in the banking industry. We therefore pose the hypothesis that:

H_o: Insurance does not enhance banks operations in the Nigeria banking industry.

H₁: Insurance enhances banks operations in the Nigeria banking industry.

IV. Methodology

The research was conducted by the author between February and August 2011. Both primary and secondary data were used for the study. The literature is the secondary source of data; engaged to facilitate adequate understanding of elements and general developments associated with the study. The primary data were collected through survey. Structured questionnaires were administered to participants through the internet (esurvey) as attachment to email to obtained quantitative data. The development of the questionnaire was guided by the literature, consultation with experts, and a pilot test. The questionnaire was examined by several academics which specialised in insurance and risk management to ensure the face validity of the instrument. Similarly, a pilot test was conducted through personal interviews with executives responsible for risk management and insurance purchase decision in commercial banks in Nigeria. The questionnaire is divided into 5 sections, containing 44 questions and a portion for respondents' additional comments.

The population consist of staff of risk management unit/department of commercial banks in Nigeria; as we envisaged that banks risk management and insurance purchase decision-making are likely to be a centralised/semi-centralised function. 20 commercial banks in Nigeria were selected through random probability sampling. 200 participants, 10 each from the 20 banks, were selected through purposive sampling for the study. Purposive sampling is well suited for the study because it emulates a representative sample, to a degree, if used as a way of getting the best information by selecting participants that are most likely to have the experience or expertise to provide quality information and valuable insights on the study (Sarantakos, 2005; Denscombe, 2010). Moreover, the adoption of purposive sampling for the study offers three main benefits: purposive sampling is most suited for study because it is not possible to generate the list of the full population; it enables the author to gather the best information by selecting participants that are most likely to have the experience or expertise to provide quality information and valuable insights on the study; and it facilitates access to information otherwise highly sensitive or difficult to the study population (Berg, 2009; 2010; Robson, 2011).

Questionnaires were administered to 200 participants; and only 149, representing 75% response rate, participated in the study. Eighty respondents (54%), were male, and 69 (46%) were female. Majority of the respondents (85%) are involved in insurance purchase decision-making in their organisations. The survey responses were processed with IBM SPSS V19 Software. The statistical technique used for data analysis was descriptive statistics, and the hypothesis was tested with Pearson product coefficient of correlation (r). Coefficient of determination was also computed.

V. Findings And Discussions

1 Purchase of Insurance Policies by Banks

Question 4 on the questionnaire requested respondents to indicate if banks purchase insurance policies to transfer and manage risks in the Nigerian banking industry.

All the respondents' affirmed that banks purchase insurance to transfer and manage risks in the Nigerian banking industry. The result is consistent with the literature. Insurance enables a bank to transfer its risks to an insurer, while the actual risk remains with the bank (Coyle, 2002; Gordon, 2003; Derek and Bates, 2008). This is possible because insurers have a more diversified portfolio of exposures which helps to decrease unexpected losses (Marshall, 2001; Boland *et al.*, 2009). Moreover, banks face several types of risk, and business decisions are made under condition of uncertainty.

2 Insurance Policies Purchase by Banks

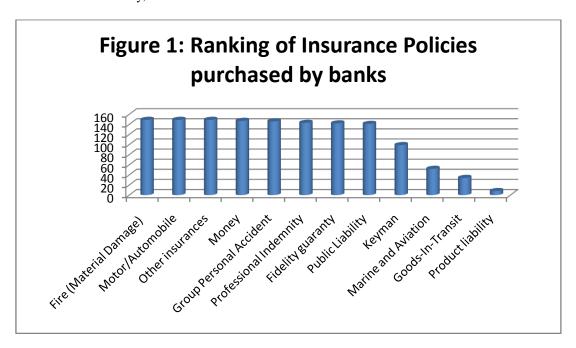
Having confirmed that banks purchase insurance to transfer and manage risks in the Nigerian banking industry; the author proceeded to ascertain types of insurance policies banks in Nigeria purchase. Section C of the questionnaire contained 12 questions on insurance policies purchased by banks, with three options: "Yes",

"No", and "Don't know". Table 1 shows the result; and figure 1 shows the ranking (highest to lowest) of insurance policies purchase by banks in Nigeria.

Table 1: Insurance policies purchased by banks (n = 149)

| Insurance Policy | | Yes | No | Don't know | Total |
|-------------------------|-----------|-----|-----|------------|-------|
| Fire (Material Damage) | Frequency | 149 | 0 | 0 | 149 |
| | Percent | 100 | 0 | 0 | 100 |
| Motor/Automobile | Frequency | 149 | 0 | 0 | 149 |
| | Percent | 100 | 0 | 0 | 100 |
| Fidelity guaranty | Frequency | 142 | 7 | 0 | 149 |
| | Percent | 95 | 5 | 0 | 100 |
| Money | Frequency | 147 | 2 | 0 | 149 |
| | Percent | 98 | 2 | 0 | 100 |
| Goods-In-Transit | Frequency | 34 | 111 | 4 | 149 |
| | Percent | 23 | 74 | 3 | 100 |
| Group Personal Accident | Frequency | 146 | 1 | 2 | 149 |
| | Percent | 97 | 1 | 2 | 100 |
| Keyman | Frequency | 99 | 45 | 5 | 149 |
| | Percent | 66 | 30 | 4 | 100 |
| Professional indemnity | Frequency | 143 | 2 | 4 | 42 |
| | Percent | 95 | 2 | 3 | 100 |
| Marine and aviation | Frequency | 52 | 91 | 6 | 149 |
| | Percent | 34 | 61 | 5 | 100 |
| Public liability | Frequency | 141 | 4 | 4 | 149 |
| | Percent | 94 | 3 | 3 | 100 |
| Product liability | Frequency | 8 | 137 | 4 | 149 |
| | Percent | 6 | 91 | 3 | 100 |
| Other insurances | Frequency | 100 | 0 | 0 | 149 |
| | Percent | 100 | 0 | 0 | 100 |

Source: Field Survey, 2012



The result shows that all the respondents' confirmed that banks purchase Fire (material damage) and Motor/automobile insurances. 98% and 97% affirmed that banks purchase Money insurance and Group Personal Accident policies respectively. Similarly, 95% indicated that banks purchase both Professional Indemnity and Fidelity Guaranty policies. 94% confirmed that banks purchased Public Liability insurance policy. Other notable policies purchased by banks include: Key-man insurance (66%); Marine and Aviation insurance (34%); and Goods-in-Transit (23%). However, all the respondents also indicated that banks purchase other insurances, not specifically mentioned in the questionnaire. The results further emphasise that banks purchase insurance to manage risks in the Nigerian banking industry.

3 Insurance Is Beneficial To Banks and the Economy

Question 14 requested the respondents to indicate whether insurance promotes savings, and is beneficial to banks and the economy. The responses were weighted using 5 point Likert scale ranging from 5 (Strongly agree) to 1 (Strongly disagree). However, for the purpose of analysis, the responses were recoded into 3 categories, such that "strongly disagree" and "Disagree", as well as "strongly agree" and "agree" responses were integrated.

| Table 2: Insurance Promotes Savings, And Is Beneficial To Bank | ks And The Economy * Respondents' Status |
|--|--|
| | Respondents' Status |

| | | Respondents' Status | | | |
|----------------------------|----------------------------|---------------------|--------------|----------|-------|
| | | Top level | Middle level | Clerical | |
| | | Manager | manager | Officer | Total |
| Insurance Promotes Savings | Agree | 32 | 78 | 21 | 131 |
| And Is Beneficial To Banks | Disagree | 0 | 8 | 0 | 8 |
| And the Economy | Neither Agree Nor Disagree | 4 | 6 | 0 | 10 |
| Total | | 36 | 92 | 21 | 149 |

The results, as shown in Table 2, indicates that 131 respondents, representing 88%, confirmed that insurance promotes savings, and is beneficial to banks and the economy. This suggests that insurance promotes savings and is beneficial to banks and the economy. This is in consonant with the literature, as insurance contributes to economy growth and development by: promoting financial stability and reduces anxiety; facilitating trade and commerce; supporting government security programs; mobilising saving; promoting effective and efficient risk management; promoting effective and efficient capital allocation; and encouraging risk reduction and loss minimisation (Skipper, 1997; Sigma, 1999; Enz, 2000; Ward and Zurbruegg, 2002; Han et al., 2010).

4 Insurance Enhances Banks Operations

Question 13 requested the respondents to indicate whether insurance enhances banks' operations through provision of insurance protection for risks associate with the Nigerian banking industry. The responses were weighted using 5 point Likert scale ranging from 5 (Strongly agree) to 1 (Strongly disagree). However, for the purpose of analysis, the responses were recoded into 3 categories, such that "strongly disagree" and "Disagree", as well as "strongly agree" and "agree" responses were integrated.

Table 3: Insurance Enhances Banks Operations * Respondents' Status

| | | Respondents' Status | | | |
|--------------------|-------------------------------|----------------------|-------------------------|---------------------|-------|
| | | Top level Manager | Middle level manager | Clerical Officer | Total |
| Insurance Enhances | Agree | 35 | 89 | 18 | 142 |
| Banks Operations | Disagree | 0 | 1 | 2 | 3 |
| | Neither Agree Nor Disagree | 1 | 2 | 2 | 5 |
| Total | | 36 | 92 | 21 | 149 |

142 respondents, representing 95%, agreed that insurance enhances banks' operations through provision of insurance protection for risks associate with the Nigerian banking industry, as shown in Table 3. The results suggest that the purchase of appropriate insurance policies can enhance banks operations. This is consistent with the literature. Banks' risks can be effectively managed by purchasing appropriate insurance policies (Skipper and Kwon, 2007; Thoyts, 2010). Moreover, purchasing of appropriate insurance policies enhance bank intermediation (Zou and Adams, 2006), thereby complementing the banking industry activity (Omoke, 2011). Furthermore, Adams *et al.* (2011) illustrate that appropriate insurance can enhance firm's value

through: lowering of firm's cost of financial distress, directly of indirectly; mitigating the assets substitution and underinvestment problems; and forcing managers to invest in positive loss control and safety projects.

5.1 Hypothesis Testing

 H_0 : Insurance does not enhance bank operations in the Nigeria banking industry.

H₁: Insurance enhances bank operations in the Nigeria banking industry.

To test the hypothesis, the responses to the question on "insurance enhances bank operations" and "respondents' involvement in risk management and insurance purchase decision-making" were used. Responses to these questions are appropriate for testing the hypothesis, as we envisaged that respondents which are involved in risk management and insurance purchase decision-making in banks would be familiar with insurance and its impacts on bank operations in the Nigerian banking industry. The hypothesis was tested with a bivariate Pearson product-moment correlation, as shown in Table 4. For the purpose of hypothesis testing; X represents "insurance enhances bank operations" and Y represents "respondents' involvement in risk management and insurance purchase decision-making".

Table 4: Correlations of: Insurance Enhances Banks Operations * Respondents' Status Correlations

| | | | (Y) |
|---|---------------------|-------------------|---------------------|
| | | | Respondents' |
| | | | Involvement in Risk |
| | | (X) | Management & |
| | | Ins Enhances Bank | Insurance purchase |
| | | Operations | Decision Making |
| Ins Enhances Bank Operations | Pearson Correlation | 1 | .142* |
| (X) | Sig. (1-tailed) | | .042 |
| | N | 149 | 149 |
| Respondents' Involvement In Risk | Pearson Correlation | .142* | 1 |
| Management & Insurance purchase Decision Making (Y) | Sig. (1-tailed) | .042 | |
| | N | 149 | 149 |

^{*.} Correlation is significant at the 0.05 level (1-tailed).

The outcome show that there is very strong positive relationship between X and Y; and the correlation is significant with a correlation coefficient of r=1.42 which is p<.05. Thus higher X responses are associated with higher responses in X. The null hypothesis (H_o) connotes that the correlation between X and Y is $\rho=0.0$. We therefore proceed to ascertain the probability that the correlation obtained in the sample came from a population where the parameter $\rho=0.0$. Since the correlation between X and Y (r=1.42) is significant at p<0.05, the null hypothesis is rejected which affirms that the two variables are positively related in the population. This implies that insurance enhances bank operations in the Nigerian banking industry.

5.2 Coefficient of Determination

The correlation between X and Y (r) is 1.42; and the coefficient of determination is r^2 . Since r = the correlation between X and Y = 1.42, then r^2 = the coefficient of determination = $(1.42)^2$ = 2.0164. The outcome implies that 201.64% of the variance in Y (i.e. respondents' involvement in risk management and insurance purchase decision-making) can be explained by response to X (i.e., question on: Insurance enhances banks' operations). There is a very strong correlation between X and Y; thus, the outcomes suggest that: insurance enhances bank operations in the Nigerian banking sector.

VI. Conclusions And Recommendations

6.1 Conclusions

Risk is multi-faceted; and is capable of reducing banks value and ability to achieve their objectives. The study examines insurance as a risk transfer mechanism suitable for managing risks associated with the Nigerian banking industry. It explores risk and insurance; examines risks and features of insurable risks; and identifies banking risks and types of insurance required by banks. The study concludes that banks purchase insurance to manage risks in the Nigerian banking industry; insurance promotes savings, and is beneficial to banks and the economy; and insurance enhances bank operations in the Nigerian banking industry. Implications for practice indicate that: insurance serves as security and stimulus to business enterprises, if adequately arranged; insurance facilitates spread of risk and stimulates banks operations; and insurance reduces loss

through risk prevention and minimisation education. In essence, the study highlights that insurance is suitable for managing banks risk. Consequently, the Nigerian insurance industry should be committed to risk management education in Nigeria. Likewise, Nigeria insurance regulatory authority, National Insurance Commission (NAICOM), should strengthen its regulatory and supervisory frameworks to facilitate adequate and effective enforcement of insurance laws and practice in Nigeria.

6.2 Recommendations

Considering the fact that there are diverse opinions on how best to manage risks, the author recommend that future studies may explore:

- A comparative study of banks and insurance practitioners' opinions on the extent and use of insurance by banks and other financial institutions.
- A comparison of insurance and other approaches to loss financing; such as financial restructuring, asset liability management, corporate diversification, self-insurance, derivatives, and contractual risk transfer.
- Future studies on the subject could also be enlarged to investigate the interfaces between risk, insurance and organisation risk management. Similarly, future studies may also focus on theoretical basis of these interfaces and how they apply to practice, with the aim of improving risk management culture in business enterprises.

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