International Conference on Accounting Studies (ICAS) 2015
17-20 August 2015, Johor Bahru, Johor, Malaysia

Dynamic antecedents of enterprise risk management implementation in the Nigerian banks

Ishaya John Dabari[*], Siti Zabedah Saidin

School of Accountancy, Universiti Utara Malaysia

Abstract

The aim of this study is to examine the extent of enterprise risk management (ERM) implementation in the Nigerian banks and identify the dynamic antecedents (internal audit effectiveness, human resource competency and regulatory influence), linked with the stage of ERM implementation. The study used survey to collect data from the staff of the departments of internal audit, risk management/internal control and other departments in 361 branches across the country and the headquarters of the commercial banks in Nigeria. The finding revealed that there is a positive significant relationship between all the dynamic antecedents (internal audit effectiveness, human resource competency and regulatory influence) and the stage of ERM implementation. Thus: "hypotheses are supported because the coefficients of the independent variables are statistically significant". Additionally, it also finds that there is ERM complete in place in the majority of the banks, as ERM complete in place represent 89% while ERM partial in place is only 11%. However, there is still low level of awareness of ERM activities among the staff especially at the branch level. Thus, a clarion calls for all the stakeholders to guarantee broad implementation of ERM in all the banks regardless of their status and at all levels.

Keywords: Enterprise risk management, Dynamic antecedents, ERM implementation, Nigerian banks, Logistic regression.

1.   INTRODUCTION

Enterprise risk management (ERM) has gained an increased attention in recent years and has become a subject of interest to the stakeholders in the business world. Many companies and organisations have implemented ERM using different frameworks or through outsourcing services. The deployment of ERM in the organisations, especially the financial industry will provide the required monitoring mechanism to effectively address potential risk exposures that can jeopardize the accomplishment of the objective of the enterprise. Thus, the essence of ERM adoption is to ensure that corporate goal of raising the value of stakeholders is achieved. Enterprise risk management implementation will further enable the entity to acquire advantage of risk and effectively convert it to an opportunity for the benefit of the organization.

Presently, most businesses and industries are facing various threats from risk exposures which have been on the increase, and are visible. These include compliance risk, competitiveness, financial risk, operational risk and strategic risk arising from technological advancement, globalization, incessant terrorist activities, diversification, information security and industrialization (Jalal-Karim, 2013). There is a risk in any situation, but must be managed properly. The management of risk exposures must be practical in terms of taking offensive action rather than defensive position. Therefore, managing such risk can be a real source of golden opportunity

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[*]Corresponding author. Tel.: +601133025570/+2347066624446
E-mail: veedabari@gmail.com

and challenge, and can be a powerful tool for supporting competitive advantage (Gatzert & Martin, 2013; Jalal-Karim, 2013). Enterprise risk management is therefore a roadmap to recognising and analysing the various risks faced by the enterprise from a business wide perspective.

Several studies have been conducted on the factors influencing ERM implementation in organisations (Altuntas, Berry-Stölzle & Hoyt, 2011; Beasley et al., 2005; Gatzert & Martin, 2013;Golshan & Rasid, 2012; Gordon et al., 2009; Kleffner et at., 2003; Liebenberg & Hoyt, 2003; Mikes, 2009; Owojori et al., 2011; Paape & Speklè, 2012; Pagach & Warr, 2011; Razali, Yazid &Tahir, 2011). These studies identified several variables that influence ERM adoption and used different measurements for the extent of ERM implementation, but all of them relegated internal audit effectiveness and human resource competency to the background because none included them in their studies as variables. This has created a gap in the literature that need to be filled. Therefore, this study examined the extent of ERM implementation in the Nigerian banks and the dynamic antecedents (internal audit effectiveness, human resource competency and regulatory influence), associated with the stage of ERM implementation.

The Nigerian banking sector was selected as a context for this study because the banks tend to be quite larger institutions, mostly public listed companies, have more complex operations and processes, with considerably larger numbers of stakeholders, and are under strict public scrutiny than enterprises in other sectors. Thus, it is usually expected that banks are more likely to use a higher level of ERM practices (Abdullatif & Kawuq, 2015).

This research has vastly contributed to the literature on ERM deployment. To the researcher's best knowledge, this is the first known study that has empirically tested this set of variable combination in this context. It has also made a significant contribution to the theory on monitoring mechanism in the sense that the effectiveness of the internal audit is being emphasized to address internal control weaknesses, the competency level of the board of directors, management and staff of the organisation is elevated to higher level of priority to address operational risk issues which is key to risk exposures. The impact of regulation on ERM adoption is put to test which is the key driver of ERM implementation especially in the Nigerian banking sector. The rest of the paper is organised into sections. The following part is the literature review, followed by the methodology, and then, result and discussion. The conclusion is the last part.

2.   LITERATURE REVIEW

The implementation of ERM in the financial institutions, especially the banking sector has been an interesting area for major stakeholders. The whole burden of implementing ERM process in the banks is to improve efficiency and performance, which will invariably enhance shareholder value. Enterprise risk management has gained an increased attention in recent years and has become a subject of interest and top priority to the stakeholders in the business world. ERM implementation will further enable the entity to take advantage of risk and effectively convert it to an opportunity for the benefit of the organization (Gatzert & Martin, 2013; Jalal-Karim, 2013; Paape & Speklè, 2012).

The banks are also exposed to a diversity of risks such as; compliance risk, credit risk, information security risk, liquidity risk, operational risk, human resource risk, reputation risk, legal risk, customer satisfaction risk and leadership risk (Owojori et al., 2011). The basic reason for the continues increase in risk was attributed to the complexity, unpredictability, evolving risks and globalization of trading activities (Yegon, Mouni & Wanjau, 2014).

There are several definitions of ERM (Casualty Actuarial Society, 2003; Lam, 2000) Nevertheless, the definition by The Committee of Sponsoring Organizations of the Treadway Commission (COSO) seemed to have attained general acceptance among the academics and the practitioners.

COSO, (2004) defines ERM as:
> " Process, effected by an entity's board of directors, management and other personnel, in strategy setting and across the enterprise, designed to identify potential issues that may bear on the entity, and manage risk to be within its risk appetite, to provide reasonable assurance of entity objectives"
> (p. 2).

The COSO vision and mission of focusing on risk management integration has become a standard of practices across the world (Sarens, De Visscherm & van Gils, 2010).

Beasley *et.al*. (2005) examined the factors associated with the extent of ERM implementation. The author finds that stage of ERM implementation is significantly associated with the appointment of CRO; managerial support; board director's independence; organisational size; and the engagement of the Big four auditors. On the other hand, Pagach and Warr (2007) set up four primary characteristics of firm that are affiliated with ERM implementation. Additionally, Manab, Hussin and Kassim (2007) document in their study that the internal audit department led 58.80% of non-financial companies which adopted ERM programs. This was ascribed to the effectiveness of the internal audit functions.

Various studies have been conducted on the factors influencing ERM implementation in organisations (Altuntas, Berry-Stölzle & Hoyt 2011; Beasley et al, 2009; Desender, 2011; Fadun, 2013; Gatzert & Martin, 2013;Golshan & Rasid, 2012; Gordon, Loeb & Tseng, 2009; Kleffner et at., 2003; Liebenberg & Hoyt, 2003; Mikes, 2009; Owojori et al., 2011; Paape & Speklè, 2011; Pagach & Warr, 2011). These studies identified several variables that influence ERM adoption and used different measures to examine the extent of ERM implementation, all the same, they all relegated internal audit effectiveness and human resource competency to the background because none included them in their fields as variables.

2.1   Antecedents of ERM Implementation

It is a well-known fact that pressures are being mounted by regulators and major stakeholders to improve risk management practices and risk reporting by applying risk based regulation (Paape & Spekle, 2011; Kleffner et al., 2003).

International Accounting standard board (IASB, 2004) offers a provision that internal audit professional standards should adopt a risk-based approach. Internal auditors also have a role in consulting and providing assurance on risk management. The internal auditor should also have the requisite qualification and technical ability to effectively perform analytical jobs and facilitation skills and value addition activities which will enhance their effectiveness (Badara & Saidin, 2014; Cohen & Sayag, 2010).

Badara and Saidin (2013) enumerated the key factors of competency to include training, professional qualification, education, experience, and knowledge of the organisation's operations. Current trends in the application of human resource management places great importance on the competency level of the Board of directors, top management and cross functional staff, especially its use in improving effective job performance, which enhances organizational competitiveness.

The study of risk management is scarce as there are only few studies on risk management in Nigeria. All the studies empirically failed to evaluate the extent of ERM implementation in the Nigerian banks. Some of the studies that examined risk management include; (Adeleye, Annansingh & Nunes, 2004; Dabari & Saidin, 2014; Fadun, 2013; Kolapo etal., 2012 Owojori et al., 2011; Njogo, 2012;).

The Central bank of Nigeria (CBN, 2012) maintains that risk management is still at its rudimentary level and is bedevilled by a number of challenges. These challenges include poor knowledge of risk management by members of the board of many banks and lack of professionals. Others are lack of risk training and education and lack of a framework that supports the development of skilled and capable workers in the industry (CBN, 2011; 2012). This study tests the extent of ERM implementation in the Nigerian banks and the dynamic antecedents (internal audit effectiveness, human resource competency and regulatory influence), associated with the stage of ERM implementation.

3.   METHODOLOGY

The study adopted a quantitative approach using survey by collecting cross sectional data through a questionnaire. To assure the robustness of the questionnaire, a satisfactory result was obtained from the pilot test using 73 respondents from the branches. There was also a confirmation of the content validity of a group of experts comprising three faculty members and two practitioners. The face validity session was further conducted by the researcher through a focus group comprising of nine member panel in two branches of one of the commercial banks. After effecting the necessary corrections and adjustments observed, the researcher went ahead to conduct the major survey.

The questionnaires were administered to the staff of risk management, internal audit and other departments of the twenty one (21) commercial (Money Deposit, MDB) banks in Nigeria (CBN, 2012). The questionnaires were distributed to the staff of the various banks in three hundred and sixty one (361) branches across the

country and the respective headquarters of the banks through drop and pick procedure with the help of research assistants engaged by the researcher. The respondents were stratified into top, middle and lower level managers. The questionnaires were administered in eight cities (Abuja, Kano, Kaduna, Lagos, Jos, Port Harcourt, Enugu and Bauchi) across the six geopolitical zones of Nigeria. The percentage distribution of the questionnaire to the commercial banks was based on size and the spread of branches across the land.

Seven hundred and twenty two questionnaires were mailed away to the commercial (MDBS) banks. 435 questionnaires representing 60% were found usable. According to Nakpodia, Ayo & Adomi, (2007), the response rate for a survey research in Nigeria is 45-73%. However, Hair et al., (2010) indicated that a response rate of 30% is sufficient for the survey. The completed questionnaires were collected by the research assistants in order to facilitate fast retrieval of completed questionnaire and also to provide high response rate. The Data was keyed into SPSS version 20 for further analysis. A non-response bias was calculated. Both the descriptive test and Levene's test for equality of variance were conducted on the demographic and continuous variables. The determination of the descriptive test did not indicate any significant statistical differences between (Early and Late) respondents' demographic variables. Logistic regression was applied for further analysis because of the categorical dependent variable.

3.1 Research Model

The logit model for this study is:

$$ln\frac{SERM}{(1 - SERM)} = \alpha_0 + \beta_1 IAE_{it} + \beta_2 HRC_{it} + \beta_3 RIS_{it}$$

Where;

SERM= Stage of Enterprise Risk Management Implementation; IAE=Internal Audit Effectiveness; HRC=Human Resource Competency; RIS=Regulatory Influence Support.

The categorical dependent variable, STAGE of ERM IMPLEMENTATION, reflects a dummy variable. Value of 1 or 0 as follows: ERM stage of implementation = 1, if ERM is completely in place; ERM stage of implementation = 0, if ERM is partially in place. The independent variables are continuous variables measured by 5-Likert scale of 1=strongly disagree to 5= strongly agree.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The majority of the respondents concurred that their banks have been in existence for 21years and above with 69%, while others agreed that their banks ranges between 16-20 years old with 5%. With respect to listing on the Nigerian Stock Exchange (NSE), 92% said "yes" while only 8% said "no". The presence of chief risk officer (CRO) attracted 98% of the respondents which shows the extent of ERM implementation in the Nigerian banks. With respect to auditor type, Big four (Big4) auditors have 65%, while non big4 has 35%. In terms of bank total assets, most of the respondents indicated that their asset base is between 76-100 Billion Naira representing 43%, while others agreed that it ranges from 101 Billion Naira and above representing 36%. To determine the complexity of the banks, the respondents were asked to indicate the total number of branches in their banks. The respondents argued that the number of branches is 121 and above represents 92%, while some stated the range of 91-120 branches representing 4%.

The percentage of ERM complete in place was 89%, while ERM partial in place was 11%. This indicates that there is a substantial degree of conformity with the CBN directive on ERM implementation. Nevertheless, such implementation could be partial or complete as it was required for every bank to implement ERM (CBN, 2011). The result has, therefore, answered the research question one of the subject matter which shows ERM completely in place by a greater proportion of the Nigerian banks. This study is really an extension of the studies by (Beasley et al., 2005; Dabari & Saidin, 2014; Desender, 2011; Kleffner, 2003; Önder & Ergin, 2012; Paaple & Spekle, 2011). The relationship between the studies is being sustained by maintaining stage of ERM implementation and regulatory influence as variables.

As regards the independent variables, the mean values range from 4.18 to 4.40 with the lowest standard deviation below 1 which is .829 and the highest is .941. The minimum score is 1 and the maximum score is 5 for all the variables. These have met the basic prerequisite for further analysis.

4.2   Test of Multicollinearity

Multicollinearity cases can be discovered and handled by deleting the affected variables. To detect multicollinearity in this subject area, Pearson correlation of SPSS was used. From the analysis, it is obvious that there is no variable that is highly correlated with one another. Based on the fact that the correlation values are considerably under the threshold of 0.9, it can be reasoned that there is no multicollinearity problem among the variables under investigation. The VIF is below the threshold of 5 with the highest value of 1.691 and lowest 1.244. The margin value is above.30 with the highest value of.804 and lowest values of.591. All these did not bring out any correlation or multicollinearity problem.

4.3   Logistic regression result

The result of the logistic regression analysis done to assess the influence of antecedents on the stage of ERM implementation in the banking sector using the independent variables (RIS; IAE & HRC) is presented in table1 below.

Examining the Omnibus tests of model coefficient, which is the chi-square statistic and its significant level. The model's, step, block and model are the same. This is the probability of obtaining the chi-square statistic ((18.333) DF 3 at a significant level of p-value less than. 000. There is, in fact, no effect of the independent variables, taken together, on the dependent variable. In this wise, the model is statistically significant at p-value=.05. Therefore, the overall model is statistically significant. The model summary which indicates the -2 likelihood for this study is 287.913 whilst the value of Nagelkerke-R² of .082. However, Hosmer and Lemeshow (2000) warn against reporting the Nagelkerke-R² because it is not the same value of R^2 as in Ordinary Least Square (OLS). Therefore, they recommend another measure of testing the goodness of fit of the model. Thus; Hosmer and Lemeshow tests of goodness of fit. The Hosmer and Lemeshow test indicate no significant result which reflects correct model fit. The result indicates that the factors influencing the Stage of ERM implementation can only be explained by the predictor variables under investigation by 8% only. The classification table correctly classified the stage of ERM implementation by 88.5% which is remarkable. Table 2 shows the Wald test with the value of 185.234 and Exp (B) of 7.878.

In the table 1 below, the three variables (RIS, IAE and HRC) are positively significant with the stage of ERM implementation at a significant level at 10% respectively. (See table. 1 below). Thus: "hypotheses are supported because the coefficients of the independent variables are statistically significant".

Table 1. Logistic regression result

Construct	Coefficient	S.E.	Sig.
Regulatory Influence support	.327	.169	.053***
Internal Audit Effectiveness	.287	.166	.084***
Human Resource Support	.278	.154	.071***
Constant	-1.609	.840	.055

Note: ***significant at 10 percent

4.4   Discussion

The result implies that the implementation of ERM in the banking sector was greatly influenced by the CBN Code of corporate governance issued in 2006 and the subsequent amendment in 2011 to include mandates to the banks to institute a robust risk management process to effectively manage their risk exposures. This outcome indicates compliance by the commercial banks since the current stage of ERM implementation was rated as 89% while just 11% indicated partially implemented. This is in contrast with the finding of Beasley et al., (2005). However, it has been documented from the responses of the respondents that some banks had already implemented ERM long before the CBN mandate.

Internal audit effectiveness and human resource competency were significantly positively associated with the stage of ERM implementation at p- value of 10%. The internal audit has a great role to play in consulting and providing assurance on risk management to the board and top management. From the educational background of the respondents, it is crystal clear that the internal auditors have the requisite qualification and technical power to effectively perform analytical jobs and facilitation skills and value addition activities (Badara & Saidin, 2013). This finding lent support to the study by Cohen and Sayag (2010) who found internal auditors positively related to the level of programme implementation, however, it was in a different context.

The finding with respect to human resource competency is not surprising because the Central bank of Nigeria (CBN, 2012) maintains that risk management is still at its rudimentary level and is bedevilled by a number of challenges. These include poor knowledge of risk management by members of the board of many banks and lack of professionals. Others are lack of risk training and education and lack of a framework that defends the growth of skilled and capable workers in the industry (CBN, 2011 & 2012). The demand to concentrate on these factors raises the degree of knowledge and awareness of top management and staff of the banks about ERM systems and its benefits. Human resource competency entails level of awareness, instructions and training, mental ability and capability building of the bank's personnel, including ERM staff about risk management organizations, tools, its procedures and applications (Yaraghi & Langhe, 2011).

5.   CONCLUSION

This research examined the extent of ERM implementation in the Nigerian banks and the dynamic antecedents for its implementation. The finding reveals a high degree of conformity with the CBN mandate of establishing a robust ERM system to manage risk exposures. Nevertheless, some of the banks had already implemented ERM before the CBN directive. The analysis also shows a positive significant relationship between regulatory influence, internal audit effectiveness and human resource competency with the stage of ERM implementation in the Nigerian banks.

The significance of the findings shows the demand for greater knowledge and understanding of the ERM process among the board members, top management and staff of the bank. The application and the involvement of the internal auditors in the ERM systems will facilitate better and more effective role of the internal auditors. The CBN and other monitoring agencies should be involved in training and creating awareness of ERM to enhance the capability and capacity of all the stakeholders.

This study is however limited to the commercial banks only and greater percentage of the respondents was lower level staff that might not have adequate information about the level of ERM implementation. Thus, future research is needed to assess the ERM implementation intensity and its effectiveness using the top level management as respondents. Other studies could as well examine the stage of ERM implementation in Development and Co-operative banks, Microfinance banks, and Finance and Discount houses.

ACKNOWLEDGEMENTS

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