International Journal of Economics, Business and Management Research

Vol. 3, No. 05; 2019

ISSN: 2456-7760

IMPACT OF ENTERPRISE RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF RURAL AND COMMUNITY BANKS IN GHANA

Ernest Ofori Asamoah
Kwame Nkrumah university of Science and Technology, Institute of Distance Learning, Kumasi, UPO, Ghana

Patrick Arkoh
Kwame Nkrumah university of Science and Technology, Institute of Distance Learning, UPO Kumasi, Ghana

Abstract
Over the years, enterprise-wide risk management has become a great concern for managers and board of directors who provide strategic leadership and governance oversight for organizations worldwide. In this regard, the study examined the impact of enterprise risk management practices on financial performance of rural and community banks in. Quantitative strategy was adopted via survey questionnaire to collect data from rural and community banks in Ghana. The study population was limited to rural and community banks in Ashanti Region of Ghana. Both primary and secondary data were used for the study. Seventy – Five (75) questionnaires were administered to respondents of 25 rural and community banks sampled for the study using purposive sampling. The data collected was analyzed using SPSS and Pearson Correlation analysis. The analyses revealed that there was positive linear correlation between enterprise risk management and financial performance indicators of leverage, asset quality and liquidity. On the other hand, the analysis also revealed that there is negative weak linear relationship between enterprise risk management and financial performance indicators of return on asset and asset turnover. Furthermore, the finding of the study also revealed that there is strong positive relationship between enterprise risk management practices and overall financial performance of rural and community banks.

Keywords: Enterprise risk management, Practices, Financial Performance, Rural and Community Banks

INTRODUCTION

Over the years, attention towards enterprise- wide risk management has emerged as priority globally due to recent financial crisis which occurred from 2008-2009. Regulators and shareholders are concerned about financial industry ability to manage various forms of risk, in light of this financial crunch (McKinsey, 2013). There have been various forms of dimensions on how businesses approach risk management with modern approach being more holistic approach rather than viewing risk management from a silo-based perspective (Saeidi et al, 2013). Organizations have been exposed to risk that are interrelated, sophisticated and capable of causing greater extensive destruction unlike previous and this can result to potential catastrophic

Vol. 3, No. 05; 2019

ISSN: 2456-7760

outcomes when managements fail to identify and manage risks connected to day –to- day operations of a firm(Fraser and Simkins, 2009).

Rural and community banks (RCB) in Ghana, in recent years have been affected with various forms of enterprise risk such as operational risk, credit risk, legal risk and liquidity risk that hinder their operations and this has consequently limited RCB value performance (Ayam and Ahinful 2015). In view of this, financial institutions are implementing ERM programmes which seek to manage the entire significant risk exposure in a cohesive and all-inclusive manner not like the traditional risk management practices where enterprise risks are mitigated in isolated cases (Altuntas et al, 2011)

Though other studies have been carried out in the area of risk management practices in the Ghanaian financial institutions context, however, all these studies were concentrated on traditional risk management practices (silos) methods in financial institutions (Afriyie and Akotey, 2013; Akotey and Abor, 2013; Baompong; 2014; Ayam and Ahinful 2015).

REVIEW OF RELATED LITERATURE

Enterprise Risk Management

Enterprise risk management (ERM) is define as the;

process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives (COSO, 2004, p.16).

Similarly, enterprise risk management refers to the 'process by which organization in all industries assess, control, exploit, finance and monitor risks from all sources for the purpose of increasing the organization's short and long term value to its stakeholders'(CAS, 2003,P.8). Enterprise-wide method of managing and centralizing risk exposure in holistic fashion manner is the underlined concept for enterprise risk management (Alviunessen and Jankensgard, 2009). ERM is unique from the concept of traditional method of managing corporate risk and it refine method which syndicates whole risk management events to achieve a comprehensive integrated corporate framework such as identification of key risk categories and exposures, quantitative models to measure and evaluation of risk, tools to manage risk efficiently, organizational risk awareness culture, management strategies that integrates ERM and various parts into operational and strategic decision making (Altuntas *et al,* 2011). A traditional approach, on the other hand is generally, risk exposures and are manage in isolated cases thus risks mitigation is done at departmental level (Kleffner *et al,* 2003).

Enterprise Risk Management Framework

The Committee of Sponsoring Organization of the Tread way Commission (2004) published an integrated enterprise risk management framework which is used as indicator for management of enterprise risks as opposed to silo-based method of risk management. According to Quinn (2006)

Vol. 3, No. 05; 2019

ISSN: 2456-7760

the framework is employed to provide systems and improve internal environment controls which address business organizations enterprise risks in a broad way as opposed to dealing with various types of risk separately through silo-based method of risk management.

The table 1: below depicts the key elements of each component of COSO ERM framework

Internal environment Risk Management Philosophy – Risk Appetite –Board of Directors – Integrity and Ethical Values- Commitment to Competence – Organizational Structure – Assignment of Authority and Responsibility –Human Resource Standards
Objective Setting Strategic Objectives – Related Objectives – Risk Appetite – Risk Tolerances
Events Identification Events – Influencing Factors – Event Identification Techniques – Events Interdependencies – Event Categories – Distinguishing Risks and Opportunities
Risk Assessment Inherent and Residual Risk – Establishing Likelihood and Impact – Data Sources – Assessment Techniques – Events Relationships
Risk Response Evaluating Possible Responses – Selected Responses – Portfolio View
Control Activities Integration with Risk Response – Types of Control Activities – Policies and Procedures – Controls over Information Systems – Entity Specific
Information and Communication Information – Communication
Monitoring Ongoing Monitoring Activities – Separate Evaluations – Reporting Deficiencies

Adopted from COSO (2004)

The internal environment refers to an organization's, risk appetite, board oversight, ERM philosophy, human resource standard among other basic elements. Internal factors are considered

Vol. 3, No. 05; 2019

ISSN: 2456-7760

as essential attributes that effect the decision for an organization to practice enterprise risk management and these factors have the responsibilities to control and manage company with the purpose of accomplishing the objective of the organization (Abdullah *et al*, 2012). According to Zand (2009) it is an obligation of organization's management to perform an analysis of detail overview of enterprise risk and corporate executive directors are responsible for oversight responsibilities to ensure adherence to policies.

Commitment to risk management competencies are considered as key in ERM implementation in the executive level and nowadays seen as a vital entity source of continued growth and enduring competitive business advantage (Jala-Karim, 2013). Furthermore, according to Dabari and Saidin (2015) noted that competency of management and executive directors will assist them in taking advantage of opportunities and reduce threats related to risks for the benefit of a particular bank and as such enhancing competitive advantage. Constant education and training program in risk management for employees provide continuous improvement for the development of competency within the whole entity (Hussin *et al*, 2008) and engaging staff through a participative leadership style and provision of an enabling environment in which employees have a voice, organizations can be more rapidly recognized and manage possible threat and opportunities, thereby reducing volatility and risk (Sax and Torp, 2015).

Basically, objective setting defines operations, reporting procedures, and regulatory compliance required observed. For an entity to determine options to achieve its strategic objectives, managements are expected to recognize risks which are related to a variety of strategic decisions and consider the effects. Identification of event element constitute techniques employed to identify risks, factors that influence risks, categories of risk, differentiating between risks and opportunities and how linkages to manage risks can be created(COSO,2004)

Assessments of risk give management the opportunity to asses' likelihood events which will affect the success of objectives. The assessment of events within the organization are considered from two perspectives likelihood and impact which are usually done by both quantitative and qualitative methodology (COSO, 2004). This enables management to measure the magnitude of outcome of the loss in case of the recognition of uncertain events (Zeghal and Aoum, 2016). Risk Response component is concern with entity managing risk through prevention, decrease, transfer and assent. Response to daily risk by management is based on the assessment of likelihood events of risks and their corresponding impact as well as cost and benefit analysis (2004).

Control activities aspect is about how policies and procedures are carried out across the entire organization which includes activities at all departmental and functional level (COSO, 2004). Controlling by its nature is recognized as the most essential tool to check efficiency of an institution and for easily overcoming the economic crisis and recovery as well as achievement of objectives set within the institution (Dimov and Iliev, 2010). Information and Communication element deals with how management identify and capture the information which is needed to communicate to employees and enable them to perform their responsibilities. To accomplish

Vol. 3, No. 05; 2019

ISSN: 2456-7760

successful ERM in the entire organization management require information to identify, analyse and response to risk managing and accomplishing the objective of the organization .Communication has been recognize as an essential tool for creating right internal environment and other ERM components. This communication is facilitated by information technology such as integration of systems, an internet site and dashboard which displace information within easy and constant access, e-mails, meetings, memo and workshop (COSO, 2004). The risk information should be structured in a way to update top management and be abreast with any serious risks facing the organization, so that accurate decision can be taken concerning the management of the threats or risks (Akotey and Abor, 2013). In other to practice enterprise risk management effectively, COSO ERM integrated framework can be used as a benchmark within the organization to manage risk holistically and recommending solutions which can be employed to improve enterprise risk management(COSO, 2004). COSO ERM framework was adopted as basis to develop items in the questionnaires to assess the effect of enterprise risk management practices on organizational performance.

Determinants of Financial Performance

Organizational performance is a term which defines success of an institution on the basis of achieving its goal and objectives. It portrays how an organization performs over a given period of time (Miller and Cardinal, 1994). Firm performance is the capability of the institution to accomplish its objectives (Ricardo and Wade, 2001). Similarly, Daft (2000) explained firm performance as the capability of a firm to realize its objective by deploying resources effectively and efficiently. Performance measurement is regarded as an essential mechanism for implementing institution's strategies successfully (CIMA, 2008) and the key management tool for constant improvement of quality and productivity (Aguinis, 2009).

Arguably, there is no common criterion for determining organizational performance (Carton, 2004). Therefore, some authors measure organizational performance base on financial and non-financial or both. According to Brush and Vanderwerf (1992) commonly organization's performance is measured in economic or financial terms. Similarly, CIMA (2008) also is of the view that organizational performance measurement has been purely viewed from financial performance perspective, and has served dominant model for empirical research to show the performance of the institution's economic objectives (Hofer 1983). Most management measure institution's performance base on financial performance because it is easy for management to have control over them unlike non-financial indicators which is being affected by external conditions (Laisasikorn and Rompho, 2014). Additionally, assessing company performance base on financial performance enable management to notice the short term impact of the organization's performance as well as flexible to measure as compared to non-financial measurement which is difficult to determine and often focused on the long term and do not have short term effect to the organization(Ittner *et al*, 2003).

Financial performance is defined as measuring of organizational efficiency in management of assets and purchasing of assets (Demodaran 2008). According to European Central Bank Report, (2010) the holistic and appropriate indicator for banking sector financial performance are

Vol. 3, No. 05; 2019

ISSN: 2456-7760

efficiency, capital adequacy and asset quality. Kaplan and Norton (1992) noted that revenue growth, asset utilization and effectiveness of cost are the core variables which are applicable for measuring organizational financial performance. Rauf (2007) and Khan (2010) in their studies, they measure the financial performance of organization base on profitability, sales and market shares. Mamai and Yinghua (2017) employed return on equity as financial performance indicator to determined financial performance of manufacturing small and enterprise in their research. It can also be noted from Kpodo and Agyekum (2014) in their research on determining financial performance of Ghana Club 100 financial institutions used cost, market share, return to shareholder, asset quality, profitability and efficiency as financial performance indicators. Moreover, Pandey (2009) affirmed that liquidity, solvency and profitability are the effective measurement indicators. Organization's financial performance can also be measured by financial efficiency and operation efficiency in the use of resources (Pagach and Warr, 2008). Financial performance of an organization can also be measured by efficiency in mobilizing resources for production (Grace *et al*, 2010). Organization's short term solvency is measured by current ratio which is determined as dividing current asset by current liabilities (Emery *et al* 2007). According to Wood (2008) asset turnover is used to measure how effectively the assets of organizations are being used to generate sales.

It can be deduced from the literature review that measurement of organizational financial performance is varied both internally and externally. In this regard the study explored on profitability, leverage, asset quality, liquidity and efficiency proxy by return on asset, leverage ratio, asset quality ratio, liquidity and asset turnover as indicators of financial performance indicators.

Enterprise Risk Management Practices and Organizational Financial Performance

Previous researchers on enterprise risk management in both financial and non-financial organizations have confirm some significant relationship between ERM practices in an organization and its potential impact on financial performance. Mamai and Yinghua (2014) for instance noted from a study conducted on practice of ERM and its impact on financial performance in manufacturing SMEs in Cameroon. They noticed that there is significant positive correlation between ERM and financial performance. The study was supported by a study conducted on effect of ERM implementation on organizational value on 200 selected European companies (Bertinetti *et al*, (2013)

Furthermore, implementation of ERM in business organization has largely been said to decreased stock price volatility, improved capital efficiency, improved cost effectiveness and improving shareholder value, (Paape and Spekle, 2011; Gates *et al*, 2012; Silva et al, 2016; Soltanizadeh *et al*, 2016; Gatzert and Martin, 2013; Ping and Muthuvçloo,2015; and Krause and Tse, 2016). Notably business organizations are willing to adopt ERM in business organization to increase perceived financial performance as a result of positive impact that has been established (Gates *et al*, 2012).

Vol. 3, No. 05; 2019

ISSN: 2456-7760

Conversely, aftermath of crunch global financial crisis which occurred in 2008, some works have been conducted in the financial sectors to assess the effective implementation of ERM and firm financial performance. Recently, a study conducted by Adeusi *et al* (2013) concentrated on association among risk management and financial performance in Nigerian banking industry. They noted that there is converse association among financial performance of banks and doubts loans and capital asset ratio was noticed to be positive and significant- thus there is significant. It was also affirm by Ahmed and Manab (2016) examined the effect of enterprise risk management framework application and board equity ownership on financial institutions performance. The study concluded that enterprise risk management framework implementation and board equity ownership have significant positive effects on financial and non-financial performance of financial institutions. Moreover, adoption of ERM in organization significantly contributes to the value of the organization performance as noticed by Waweru and Kisaka (2013). Additionally, Liebenberg and Hoyt (2011) studied the implication of risk adaptation on firm's performance across 117 insurance industries in United State. The result indicated positive association among ERM adaptation and business value. Likewise, a research conducted in insurance industry in US by Grace *et al* (2010) determined the effect of ERM on organizational financial performance. It was revealed that the practices of ERM cost and revenue efficiency, increase in return on assets. Most business organizations are practices ERM due to anticipated likelihood of financial misery and its unambiguous cost, meagre performance and growing prospects (Khan *çt al,* 2016).

However, other researchers and authors are of the view that ERM have no relationship with organizational financial performance. Based on the research conducted by Tahir and Razali (2011) in Malaysia, assessing the association between ERM practices and performance of firm using 528 public listed companies. The value was determined by Tobin's Q; and was tested against variables of majority ownership, leverage, profitability, international diversification and firm size. The study result indicated an ERM practice is not significantly related to firm value. Similarly, Ballantyne (2013) also examined ERM practices and organizational financial performances using 134 United State public list companies based online survey using variables of financial statements components. The study indicated that implementation of ERM practices does not have significant relationship between organizational financial performance.

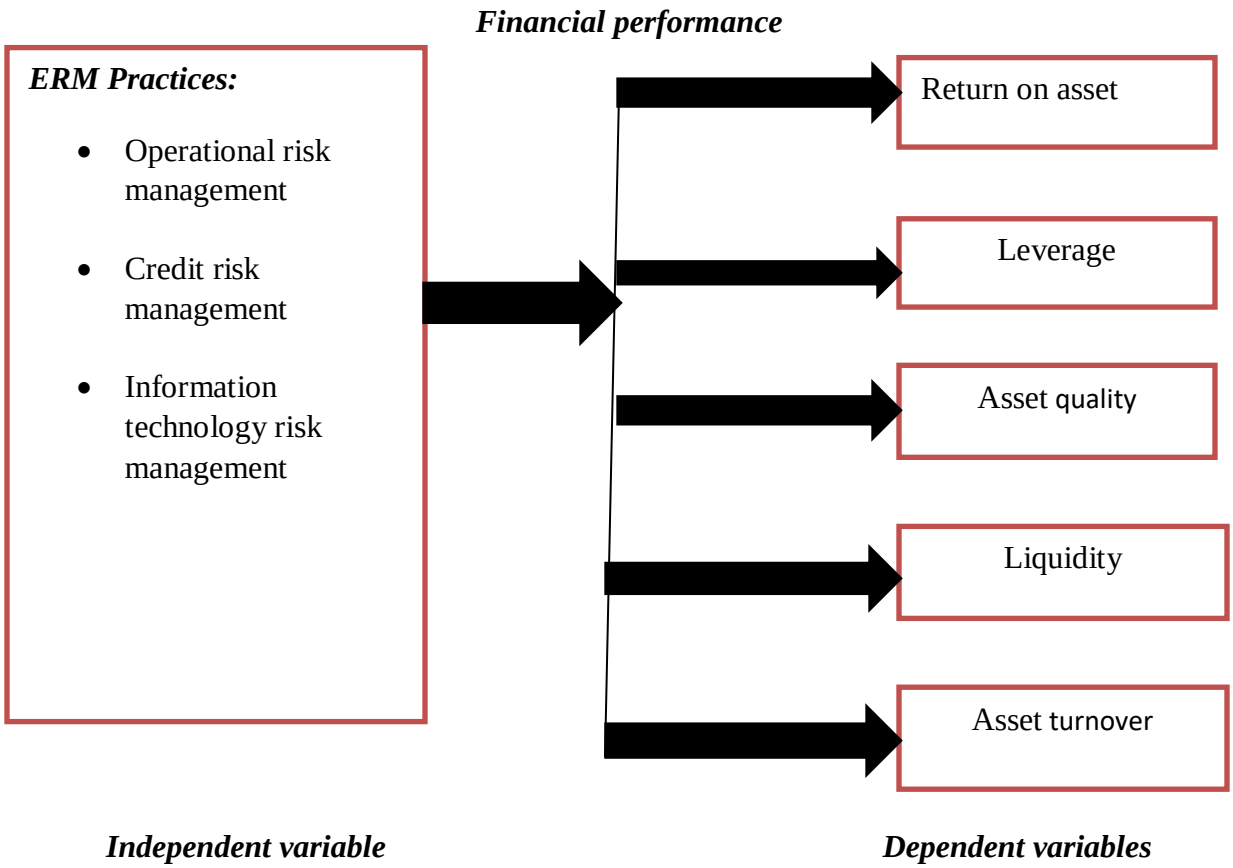
Laisasikorn and Rompho (2014) conducted a research on the association between successful ERM system, the financial performance variables of return on assets, return on equity and earnings per share of listed companies in Thai. They noticed that ERM system and performance measurement system have weak correlation with firm's financial performance. In assessing long-term of ERM on organization's performance, Pagach and Warr (2010) used assets and market indicators changes. They concluded organizations that practices ERM benefit from decrease in earnings volatility. Nevertheless, the study fails to establish the ERM and firm value. In addition, Ramlee and Ahmad (2015) assessed the economic performance of 74 companies operating in Malaysia. The financial performance was tested using return on equity, return on assets and Tobin Q. However, the study concluded that there is no significant relationship among risk management and financial performance non-financial companies in Malaysia. In conclusion, almost all the research on enterprise risk management used secondary data from online financial

Vol. 3, No. 05; 2019

ISSN: 2456-7760

statements elicited through search engine. The sampling populations were based on highly regulated financial and insurance industries as well as the studies were focused on institutions which have appointed chief risk officers. In addition, the studies were conducted in the advanced countries and to some extent less developed countries. However, primary and secondary data was adopted for this study and is expected to fill in the literature gap in the area of enterprise risk management practices in rural and community banks in Ashanti Region.

Figure 1: Conceptual Framework for the Study



Source: Author's Construct, 2018

According to the literature reviewed above and the hypothesis, financial performance is likely to be affected by a number of enterprise risk management practices. This constituted the independent variable for the study. The dependent variables were the financial performance of rural and community banks proxy by return on asset, leverage, asset quality, liquidity and asset turnover. According to Gates *et al* (2012) and among others based on the literature are of the

Vol. 3, No. 05; 2019

ISSN: 2456-7760

view that enterprise risk management has an influence on organizational financial performance. Base on this it is prudent to conduct the study base on the framework illustrated above.

Research Hypothesis

With regard to the literature review and conceptual framework above, it is appropriate to formulate the following hypothesis to enable to draw conclusion regarding the conduct of the study.

Hypothesis 1

***H_0**: There is no positive relationship between enterprise risk management and return on asset*

***H_1:** There is positive relationship between enterprise risk management and return on asset*

Hypothesis 2

***H_0**: There is no positive relationship between enterprise risk management and leverage*

***H1**: There is positive relationship between enterprise risk management and leverage*

Hypothesis 3

***H_0:** Enterprise risk management is not positively related to asset quality*

***H_1**: Enterprise risk management is positively related to asset quality*

Hypothesis 4

***H_0**: Enterprise risk management is not positively related to asset liquidity*

***H_1**: Enterprise risk management is positively related to liquidity*

Hypothesis 5

***H_0**: Enterprise risk management is not positively related to asset turnover*

H_1: Enterprise risk management is positively related to asset turnover

Hypothesis 6

***H_0:** Enterprise risk management is not positively related to organizational financial performance*

***H_1**: Enterprise risk management is positively related to organizational financial performance*

METHODOLOGY

Vol. 3, No. 05; 2019

ISSN: 2456-7760

The study population was rural and community banks that have been licensed by Bank of Ghana, However, the target population was limited to 27 rural and community banks in Ashanti Region. This study was limited to Ashanti Region because of the high concentration of licensed rural and community banks in the Region, total asset and profit performance unlike other Regions. The sample size was determined based on Miller and Brewer (2003) mathematical formula;$\boldsymbol{n} = \frac{\mathbf{N}}{\mathbf{1+N(\alpha)2}}$ where **N** is the sample frame, **n** is the sample size and **α** is the margin of error fixed at 5%. The sample size= 27/ [1 + 27(0.05)^2] = 25.29 = 25. Therefore 25 sample size was used for the study.

Purposive sampling was used to select respondents for the study. Purposive sampling is method of collecting data from a particular area or group of respondents when they are only particular elements with the require information (Rea and Parker, 2005). Purposive sampling was adopted in selecting 75 respondents consisting of general managers, risk managers, internal auditors, ICT managers and board of directors from the study population. These respondents were selected because they are the people who coordinate ERM activities as well as not all the staff in the study population have the same level of information regarding the organization's ERM activities (Shaughnessy *et al*, 2011; Saunders *et al*, 2009; Bhattacherjee, 2012). The study used closed-ended structured questionnaires to collect primary data from the target respondents. In all, Seventy Five (75) questionnaires were administered to respondents of the study with a varying position in rural and community banks in Ashanti Region. Audited annual financial reports of rural and community banks in Ashanti Region covered a period of 2012 to 2016 were collected from ARB Apex Bank as secondary data for independent variables. The data collected were analyzed using Microsoft Excel and Statistical Package for Social Sciences (SPSS). Data collected from the field were analyzed and presented by descriptive statistics. The mean scores were widely used for the research analysis to measure the average ratings of responses on each statement for the study. This study adopted mean score because it serves as a valuable alternative to the median especially when it is ordinal data. Pearson Bivariate correlation analysis was adopted to determine the relationship between the independent variables and dependents variables. The null hypotheses for the study were denoted by H_0 and the alternative hypotheses were denoted as H1. T- Test was used to test the hypothesis and the significant of the correctional was determined by $P < 0.05$ confidence level

RESULTS AND CONCLUSION

Validity test for financial performance

The distribution of factor loading scores from table 2 below indicated the scores were 0.856, 0.906, 0.613, 0.850 and 0.656 for profitability, leverage, asset quality, liquidity and efficiency respectively. However, all factors values greater than 1.0 and factor loading more than 0.3 are accepted as well as items with communalities result greater than 0.8 are regarded as high, between 0.4 and 0.7 are determine as moderate and below 0.4 are regarded as low(Velicer and Fava, 1998). This means the result for the variables used to measure the financial performance

Vol. 3, No. 05; 2019

ISSN: 2456-7760

were accepted for the analysis because all the items met the acceptable threshold score (See Table 2 below)

Table 2 :Validity test for financial performance

Financial Performance Indicators	Initial	Extraction	Factor Loading
Return on Asset	1.000	0.764	0.856
Leverage	1.000	0.821	0.906
Asset Quality	1.000	0.684	0.613
Liquidity	1.000	0.741	0.850
Asset turnover	1.000	0.677	0.656

Sampling adequacy test for financial performance

From table 3 the coefficient of the correlation is 0.675 which is greater than the preferred partial correlation coefficient of 0.5. This implies the 67.5% is regarded as reliable since it is greater than the minimum threshold of 0.5. In addition, Bartlett's test of Sphericity was performed and the statistical significance p-value 0.000 < 0.05 for approximate Chi-Square value 32.758. Therefore, the result of the test conducted is accepted and qualify for further analysis.

Table 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.675
Bartlett's Test of Sphericity	Approx. Chi-Square	32.758
	Df	10
	Sig.	0.000

Table 4: Descriptive statistics for enterprise risk management practices

Variables	Min	Max	Mean	Std. Dev.
Operational risk management practices	3.47	4.39	4.01	0.214
Credit risk management practices	4.07	4.65	4.36	0.175
Information and Technology	3.94	4.70	4.28	0.163
Enterprise Risk Management	**3.68**	**4.40**	**4.02**	**0.168**

It is evidently from the above table that with the overall mean scores of 4.01, 4.36 and 4.28 with low standard deviation of 0.214, 0.175 and 0.163 corresponding to operational risk management,

Vol. 3, No. 05; 2019

ISSN: 2456-7760

credit risk management practices and information technology risk management practices respectively, with overall ERM mean and standard deviation of 4.02 and 0.168 respectively indicated by respondents confirmed an agreement of operational risk management practices, credit risk management practices and information technology risk management practices as various types of ERM practices in terms of managing risk holistically within RCBs industry in Ghana.

Relationship between ERM practices and financial performance

The study examined whether enterprise risk management practices contribute to financial performance of rural and community banks. Pearson correlation analysis was used to ascertain the relationship between enterprise risk management and that of financial performance indicators (dependent variables).

Table 5: Correlation analysis between enterprise risk management practices and financial performance

		1	2	3	4	5	6
1. Enterprise Risk Management	Pearson Corr.	1	-0.027	0.061	0.051	.702**	-0.24
	Sig. (2-tailed)		0.898	0.771	0.809	000	0.248
	N	25	25	25	25	25	25
2. Return On Assets	Pearson Corr.	-0.027	1	.720**	0.335	-0.016	.496*
	Sig. (2-tailed)	0.898		0	0.101	0.938	0.012
	N	25	25	25	25	25	25
3. Leverage	Pearson Corr.	0.061	.720**	1	.489*	0.077	.482*
	Sig. (2-tailed)	0.771	0		0.013	0.713	0.015
	N	25	25	25	25	25	25
4. Asset Quality Ratio	Pearson Corr.	0.051	0.335	.489*	1	0.339	0.107
	Sig. (2-tailed)	0.809	0.101	0.013		0.097	0.61
	N	25	25	25	25	25	25
5. Liquidity	Pearson Corr.	.702**	-0.016	0.077	0.339	1	-0.2
	Sig. (2-tailed)	0	0.938	0.713	0.097		0.338
	N	25	25	25	25	25	25

6. Assets Turnover	Pearson Corr.		-0.24	.496*	.482*	0.107	-0.2	1
	Sig. (2-tailed)		0.248	0.012	0.015	0.61	0.338	
	N		25	25	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

From the table, there is correlation between enterprise risk management and financial performance variables used for the analysis. This outcome is in agreement with the existing literature reviewed. Specifically, the results show a positive correlation between enterprise risk management and leverage, asset quality ratio and liquidity. The results also show that there was a negative correlation between enterprise risk management and return on asset; and asset turnover but their correlation coefficient -0.027 and -0.24 respectively were considered to be weak. This implies that an increase in enterprise risk management practices will lead to an increase in performance of leverage, asset quality and liquidity whereas positive increase in enterprise risk management practices will lead to a decrease in performance of asset turnover and return on asset

Table 6: Correlation analysis between enterprise risk management and overall financial performance indicators

		Enterprise Risk Management	**Overall Financial Performance**
Enterprise Risk Management	Pearson Corr.	1	0.650**
	Sig. (2-tailed)		0.000
	N	25	25
Overall Financial Performance	Pearson Corr.	0.650**	1
	Sig. (2-tailed)	0.000	
	N	25	25

***. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).*

From table above the results show that there is a positive and significant relationship between enterprise risk management and overall financial performance variables of rural and community

Vol. 3, No. 05; 2019

ISSN: 2456-7760

banks. The correlation output from the above table strongly confirmed that there is a positive association between enterprise risk management and financial performance. Specifically, there is a strong positive and significant correlation between enterprise risk management and financial performance. This implies that an increase in enterprise risk management will lead to a fixed proportion increase in financial performance. The result is in agreement with the work of Bertinetti *et al* (2013).

Hypothesis Testing

Hypothesis 1

H_0: There is no positive relationship between enterprise risk management and return on asset

H_1: There is positive relationship between enterprise risk management and return on asset

With regard to Hypothesis 1 with reference to table 5, the correlation coefficient (r = -0.027, 0. 898 > 0.05). Base on the direction of the r which is negative, the *null hypothesis* in this case is accepted at coefficient of -0.027. This means enterprise risk management (independent variable) is negatively related to return on asset (dependent variable). However, upon examine the connection between the enterprise risk management and return on asset, the correlation coefficient(r = -0.027) indicate a weak negative relationship between ERM and return on asset; however this relationship is statistically insignificant. This implies that the results cannot be generalized to be the constant outcome.

Hypothesis 2

H0: There is no positive relationship between enterprise risk management and leverage

H1: There is positive relationship between enterprise risk management and leverage

With regard to hypothesis 2 above, it seek to establish a relationship between enterprise risk management and leverage. With reference to table 5 above, the correlation coefficient (r = 0.061, p > 0.05). This implies a positive relationship between ERM and leverage. Hence the *null hypothesis* was rejected. However, with the direction of r = 0.061, means that the strength of the relationship between ERM and leverage is considered as weak and this is statistically insignificant. This insignificant relationship can be attributed to various uncontrollable variables such as economic conditions.

Hypothesis 3

H_0: Enterprise risk management is not positively related to asset quality

H_1: Enterprise risk management is positively related to asset quality

Hypothesis 3 seeks to establish whether there is positive relationship between ERM and asset quality or not? The results from table 5 indicates r = 0.051, p > 0.809. This indicates that there is

Vol. 3, No. 05; 2019

ISSN: 2456-7760

a positive linear relationship between ERM and asset quality. Therefore, *the null hypothesis* is rejected. This implies a unit increase in ERM practices would lead to a positive fixed proportion increase in asset quality performance. Considering the correlation coefficient (r = 0.051), suggest that the strength of relationship between ERM and asset quality is weak, however it is statistically insignificant.

Hypothesis 4

H_0: Enterprise risk management is not positively related to liquidity

H_1: Enterprise risk management is positively related to liquidity

With respect to hypothesis 4 above with reference to table 5, in the case of relationship between ERM and liquidity with correlation coefficient (r = 0.702, p < 0. 05). This result indicates that enterprise risk management is positively related to liquidity. This can be concluded that there is a strong positive relationship between ERM and liquidity. Hence the *null hypothesis* was rejected. Therefore, the positive correlation implies an increase in successful ERM practices would lead to improve fixed proportion in liquidity performance of rural and community banks.

Hypothesis 5

H_0: Enterprise risk management is not positively related to asset turnover

H_1: Enterprise risk management is positively related to asset turnover

The hypothesis 5 above with reference to table 5, based on the relationship between the independent variable and dependent variables, r = -0,24, p > 0.05. With regard to the direction of r which is negative, the *null hypothesis* is accepted. Therefore, it can be concluded that ERM is negatively related to asset turnover but this is statistically insignificant. Moreover, the strength of linear relationship between ERM and asset turnover was considered to be weak.

Hypothesis 6

H_0: Enterprise risk management is not positively related to overall financial performance

H_1: Enterprise risk management is positively related to overall financial performance

With respect to hypothesis 6 seek to examine the relationship between ERM and financial performance. The results from table 6, the linear correlation coefficient between the independent variable (ERM) and overall dependent variables (r = 0.650, p < 0.05). This indicates that ERM is positively related to financial performance. Hence the *null hypothesis was rejected*. Considering the direction of correlation coefficient (r = 0.650) show strong linear positive relationship between ERM and financial performance and this relationship was considered to be statistically significant. This implies that a successful implementation of ERM structures would improve financial performance of rural and community banks. Hence a unit increase in ERM practices would result to positive fixed proportion increase in organizational financial performance. The

result is in consonance with the study of Adeusi *et a*l(2013); Ahmed and Manab(2016); Waweru and Kisaka(2013); Liebenberg and Hoyt(2011); Grace et'al(2010); Khan et' al(2016), Mamai and Yinghuna(2014); Paape and Spekle(2011) and Ping and Muthuveloo(2015) with conclusion that there is a positive significant relationship between ERM and organizational financial performance.

Conclusion

To uncover the effect of enterprise risk management practices on financial performance of rural and community banks in Ghana, the study established relationship between ERM and individual financial performance variables using Pearson Correlation analysis. The analyses show that there was a positive linear correlation between enterprise risk management and financial performance indicators of leverage, asset quality and liquidity. Moreover, the analysis also revealed that there is a negative weak linear relationship between enterprise risk management and financial performance indicators of return on asset and asset turnover.

Furthermore, this study also established the relationship between enterprise risk management and overall financial performance variables using Pearson Correlation analysis. The analysis indicated that there was a strong positive linear and significant relationship between enterprise risk management and overall financial performance of rural and community banks. Hence it is therefore expected that directors of rural and community banks would adapt effective enterprise risk management practices to improve their financial performance.

REFERENCES

Abdullah, M., Zakuan, A. A., Khayon, N., Ariff, M.S. M., Bazin, N.E.N and Saman, M.Z.M. (2012). Adoption of Enterprise Risk Management Practices in Organization; *A Review. International Journal of Business and Information Technology IJBIT, E-ISSN: 2047-0363*

Adeusi, O., S., Akeke, N. I., Adebisi, O. S., and Oladunjoye, O. (2013). Risk Management and Financial Performance of Banks in Nigeria**.** *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 14, Issue 6, PP 52-56.*

Afriyie, H. O. and Akotey J. O. (2013). Credit Risk Management and Profitability of rural banks in the Brong Ahafo Region of Ghana*: European Journal of Business and Management.*

Aguinis, H. (2009). "Performance Measurement", U.K.: Pearson Prentice Hall.

Ahmed, I. and Manab, N.A. (2016). Influence of Enterprise Risk Management Framework Implementation and Board Equity Ownership on Firm Performance in Nigerian Financial Sector: An Initial Finding. *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 18, Issue 1.Ver. II, PP 61-68.*

Akotey, O.J and Abor, J. (2013). "Risk management in the Ghanaian insurance industry",

Qualitative Research in Financial Markets, Vol. 5 Issue: 1, pp.26-42, doi: 10.1108/17554171311308940

Vol. 3, No. 05; 2019

ISSN: 2456-7760

Altuntas, M.,Berry-Stolzle, T. R. and Hoyt, R.E.(2011). Implementation of Enterprise Risk Management ; Evidence From The German Property-Liability Insurance Industry. *The International Association for the Study of Insurance Economics 1018-5895/11.*

Alviniussen,A. and Jankensgard, H. (2009). Enterprise Risk Budgeting; Bringing Risk Management into Financial Planning Process. *Journal of Applied Finance Journal of Applied Finance* . Vol. 19 Nos 1/2, pp. 178-190.

Ayam, J. R. A. and G. S. Ahinful (2015), Risk management in rural and community banks: The Ghanaian Experience. *Case Studies in Business and Management***,** *Vol. 2, No.1*

Ballantyne, R. (2013). an Empirical Investigation into the Association between Enterprise Risk Management and Firm Financial Performance, Lawrence Technological University.

Bhattacherjee, A. (2012). Social Science Research; Principles, method and Practices. Florida: Creative Commons Attribution-Non Commercial-Share Alike.

Bertinetti, G. S., Cavezzali, E. and Gardenal G. (2013). The Effect of the Enterprise Risk Management Implementation on the Firm Value of European Companies.

Boampong, S. O, (2014). Credit risk management in rural and community banks in Ghana: *Institute of Research Engineers and Doctors, USA.*

Brush C.G. & Vanderwerf P.A. (1992). A comparison of methods and sources for obtaining estimates of new venture performance. Retrieved April 20, 2017, from http://www.sciencedirect.com/science/article/pii/088390269290010O.

Carton, R. B. (2004). Measuring Organizational Performance: An Exploratory Study. The University of Georgia, Athens, Georgia.

Casualty Actuarial Society Advisory Committee (2003). Report of the Advisory Committee on enterprise risk management (online*)*. Arlinton: Casualty Actuarial Society.

Chartered Institute of Management Accountant (2008). Performance measurement; Gateway Series No.9.

Chartered Institute of Management Accountant (2008). Enterprise Risk Management; Gateway Series No.49.

Committee of Sponsoring Organizations (2004). Enterprise Risk Management - Integrated Framework. Application Technique, New York.

Dabari, I. J. and Saidin, S.(2015). The Extent of Enterprise Risk Management Implementation in the Nigerian Banking Sector. *I J A B E R, Vol. 13, No. 5,: 2817-2833.*

Daft, R.L. (2000) .Organization Theory and Design. (7th ed.) South-Western College Publishing, Thomson Learning. U.S.A.

Damodaran A. (2008). *Corporate Finance: Theory and Practice*, (2nd ed.). New Delhi: John Wiley and Sons.

Dimov, O. and Iliev, P. (2010). Controlling – A Modern System of Management and Control Series: *Economics and Organization Vol. 7, No 2, 2010, Pp. 253 – 262.*

Emery, D. R., Finnerty D. J. and Stowe J. D. (2007). Corporate Financial Management, (3rd ed.). New Jersey: Pearson Educational International.

European Central Bank (2010). Beyond ROE – How to Measure Bank Performance.

Vol. 3, No. 05; 2019

ISSN: 2456-7760

EY (2017). Credit risk management. Why it matters and how insurers can enhance their capabilities.

Fraser, J., and Simkins, B. (2009). Enterprise risk management: Today's leading research and best practices for tomorrow's executives (Vol. 3). John Wiley and Sons.

Gates, S., Nicolas, J .and Walker, P. L.(2012). Enterprise Risk Management; A Process For Enhanced Management And Improved Performance Management Accounting Quarterly.

Gatzert, N. and Martin, M.(2013). Determinants and Value of Enterprise Risk management; Empirical Evidence from the Literature.

Grace, M., Leverty, J., Phillips, R., and Shimpi, P. (2013). The Value of Investing in Enterprise Risk Management, Working Paper, Georgia State University and University of Iowa , *Journal of Risk and Insurance* (forthcoming).

Hofer C.W., (1983). "ROVA: A new measure for assessing organizational performance", *Advances in Strategic Management,* vol. 2, pp. 43-55. New York: JAI Press.

Hoyt, R. E., and Liebenberg, A. P. (2011): The Value of Enterprise Risk Management, *Journal of Risk and Insurance* 78(4): 795-822.

Hussin,R.E .,Yazid A.S and Razali. R.A. (2008). Enterprise-Wide Risk Management As A Value-Added Tool In Enhancing The Economic Value Of Business Enterprise.

Ittner, C., Larcker, D. (2003). "Coming up short on non-financial performance measurement", *Harvard Business Review*, November, pp. 88-95.

Jalal-Karim, A. (2013). Leveraging Enterprise Risk Management For Boosting Competitive Business Advantages in Bahrain., Management And Firm Performance; Evidence From Bahrain" *World Journal of Entrepreneurship, Management and Sustainable Development, Vol. 9 Issue: 1,pp. 65-75, doi: 10.1108/20425961311315728.*

Kaplan, R. S. and Norton D.P. (1992). The Balanced Scorecard: Measures that Drive Performance. *Harvard Business Review*, 71-79.

Khan, M. J., Hassian, D. and Mahmood, W. (2016). Why Do Firms Adopt Enterprise Risk Management (ERM)? Empirical evidence from France", *Management Decision*, Vol. 54 Issue: 8,pp. 1886-1907, doi: 10.1108/MD-09-2015-0400

Khan, A.M. (2010). Effects of human resource management practices on organizational performance: an empirical study of oil and gas industry in Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 24: 158–175.

Kleffner A.E., Lee R.B. and Mcganon, B. (2003). The effect of Corporate Governance on the Use of Enterprise Risk Management; Evidence from Canada; *Risk Management Insurance.*

Kpodo, B. and Agyekum, K. (2015). The Effects of Risk Culture on Organizational Performance - The Cases of Some Selected Financial Institutions in Ghana. *International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064.*

Krause, T. A. and Tse, Y. (2016). "Risk management and firm value: recent theory and evidence", International Journal of Accounting and Information Management, Vol. 24 Issue: 1, pp.56-81, doi: 10.1108/IJAIM-05-2015-0027.

Vol. 3, No. 05; 2019

ISSN: 2456-7760

Laisasikorn, K. and Rompho, N. (2014). A Study of the Relationship Between a Successful Enterprise Risk Management System, a Performance Measurement System and the Financial Performance of Thai Listed Companies, *Journal of Applied Business and Economics; Vol. 16 (2)*

Mamai, A. and Yinghua S. (2017). Enterprise Risk Management Best Practices for Improvement Financial Performance in Manufacturing SMEs in Cameroon. *International Journal of Management Excellence Volume 8 No.3.*

McKinsey (2013), Getting to Enterprise Risk Management; A road map for banks and other financial institutions; Working paper on risk, No. 43.

Miller, C. C. and Cardinal, L. B. (1994). Strategic planning and firm performance: A synthesis of more than two decades of research. *Academy of Management Journal*, 37(6): 1649-1665.

Miller, R. L. and Brewer, J. D. (2003). AZ of Social Research, London.

Pagach, D. and Warr, R. (2010). The Effects of Enterprise Risk Management on Firm Performance,

Paape, L. and Speklé, R. F.(2011). The Adoption and Design of Enterprise Risk Management Practices: An Empirical Study

Pagach, D. and Warr, R. (2011). The Characteristics of Firms that Hire Chief Risk Officers, *Journal of Risk and Insurance 78(1): 185-211*.

Pandey I.(2009). Financial Management. (9th ed) New Delhi: VISKAS Publishing House PVT Limited.

Ping, T. and Muthuveloo, R. (2015). The Impact of Enterprise Risk Management on Firm Performance: Evidence from Malaysia, *Asian Social Science, Vol. 11, No. 22; pp. 149-159.*

Quinn M. (2006). COSO at crossroad. *Strategic Finance*. *42-49.*

Ramlee, R. and Ahmad. N (2015). Panel Data Analysis on the Effect of Establishing the Enterprise Risk Management on Firms' Performance, Proceedings of 4th European Business Research Conference 9 - 10 April 2015, Imperial College, London . Retrieved on 18th April, 2017.

Rauf, A.M. (2007). HRM sophistication and SME performance: a case of readymade garment manufacturers and exporters in Lahore, Pakistan. Doctoral thesis submitted to Faculty of Management and Governance, University of Twente, Netherlands.

Rea, L. M., and Parker, R. A.,(2005). Designing and Conducting Survey Research: A Comprehensive Guide. San

Ricardo, R., and Wade, D. (2001). Corporate Performance Management: How to Build a Better Organization through Measurement Driven Strategies Alignment. Butterworth Heinemann.

Saeidi, P., Sofian, S., Abdul Rasid, S. Z., Saeidi, S. P. and Saeidi, S. P. (2013).The Role of Trust in Enterprise Risk Management. *International Journal of Business and Behavioral Sciences, Vol. 3, No.2Working Paper,* North Carolina State University, Raleigh.

Vol. 3, No. 05; 2019

ISSN: 2456-7760

Sax, J. and Torp, S.S. (2015). "Speak up! Enhancing risk performance with enterprise risk management, leadership style and employee voice", Management Decision, Vol. 53 Issue: 7,pp.

Saunders, M., Lewis, P. and Thornhill, A. (2009). Research Methods for Business Students,(5th edition) .Prentice Hall, Pearson Education Limited, Harlow.

Soltanizadeh, S., Rasid, S. Z. A., Golshan, N. M., Khairuzzaman, W. and Ismail W.(2016). " Business Strategy, Enterprise Risk Management And Organizational Performance". Management Research Review, Vol. 39 Issue: 9,pp. 1016-1033, doi: 10.1108/MRR-05-2015-0107

Shaughnessy, J., Zechmeister, B. and Zechmeister, S. (2012). Research Method in Psychology. (9th edition), McGraw-Hill, New York.

Tahir, I. M., and Razali, A. R. (2011). The Relationship between Enterprise Risk Management and Firm Value: Evidence from Malaysian Public Listed Companies, *International Journal of Economics and Management Sciences 1(2): 32-41*.

Waweru, N and Kisaka, E (2013). "The Effect of Enterprise Risk Management Implementation on the Value of Companies Listed on the Nairobi Stock Exchange", *Journal of Applied Finance and Banking*, Vol.3, No.3, pp.81-10.

Woods, M (2007). Linking Risk Management to Strategic Controls: A Case Study of Tesco plc. *International Journal of Risk Assessment and Management 7(8): 1074–1088.*

Zand, D. E.(2009). "Managing enterprise risk: why a giant failed", Strategy and Leadership. *Vol. 37 Issue: 1, pp. 12-19.*

Zeghal, D. and Aoun, M. (2016). Enterprise Risk Management in the U.S Banking Sector Following the Financial Crisis. *Modern Economy, 494-513*