

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Enterprise Risk Management Practices among Listed Firms on the Ghanaian Equity Market

Horvey Sylvester Senyo

Teaching Assistant, Department of Finance Department, University of Ghana

Alale Gifty Akutek

Teacher, Department of Ghana Education Service, Ghana Education Service, Accra, Ghana

Amoah Bernard Karikari

Student, Department of Finance, University of Bologna Business School, Italy

Abstract:

Enterprise risk management (ERM) implementation is on the ascendancy as it determines business performance and survival. ERM supports firms to manage risks in an enterprise-wide system. Most research work conducted on ERM focused on the value creation activity of ERM without explicitly looking at how it is being practiced in the various firms. The objective of this study is to assess Enterprise Risk Management (ERM) practices among listed firms on the Ghanaian Equity Market. This research uses a qualitative approach to assess enterprise risk management practices among listed firms in Ghana as well as the difference in the enterprise risk management practices between financial and non-financial firms. The researcher used a primary data which captures information such as firm characteristics, elements of risk management practices and enterprise risk management among the listed firms. The findings of this study revealed some differences in the risk management practices for financial and non-financial firms. Majority of the financial firms have implemented ERM and have a risk management committee, they also have risk management manual which states its risk policy and risk appetite levels but very few of the non-financial firms have implemented ERM and have a risk management manual. Also, the study revealed that most of the listed firms lack risk management experts and hence still operate in the silo risk management system. The study suggests that a good risk management practice will improve business efficiency and effectiveness hence proper risk management techniques and experts should be adopted.

Keywords: Enterprise risk management, financial firms, non-financial firms, Ghana

1. Introduction

Enterprise risk management has become an important concept in managing risk in organizations. This has emerged as a result of exposure to individual/organizational losses in any situation (Rejda, 2011). Organizations are faced with increased, sophisticated and various kinds of risks and these risks must be managed as a whole on account of the organization. Globalization, natural disasters, conflicts, human behaviour, uncertainties, complex and ambiguous business environment have contributed to the increase in quantity and complication of risks (Beasley, 2016). Organizations are therefore expected to have ways of managing the various kinds of risks that goes beyond statistical and systematic to future situations and planning (Jolly, 1997). Enterprise risk management (ERM) is a system that helps an organization to measure and manage all risks holistically while protecting the firm from loss (Hoyt & Liebenberg, 2011; Omasete, 2014).

Rejda (2011) opines that Enterprise risk management is a term that incorporates every single significant risk business face which includes operational, strategic, pure, financial and speculative risks. Rather than concentrating only on financial risk, enterprise risk management helps to manage all situations that might negatively or emphatically affect organizations performance holistically. Davenport and Bradley (2000) states that, organizations that properly comprehend their risks better are in an effective position to leverage their risks to have an upper hand over their competitors. Good understanding of risks gives firms the capacity to handle risk that intimidates opponents and to manage risk at a low cost. Risk management practices is an important concept in management as businesses who ignore how risk management should be practiced can run at a loss (Akotey & Abor, 2012).

Previous work on Enterprise risk management focused on the relationship between ERM and performance (Baxter, Bedard, Hoitash, & Yezegel, 2013; Hoyt & Liebenberg, 2008, 2011; McShane, Nair, & Rustambekov, 2011; Welbeck 2015; Acharyya, 2009; Pagach & Warr, 2010, 2011; Beasley, Pagach & Warr 2005, 2008; Gordon et al., 2009; Omasete, 2014) while others focused on the main components of ERM and its frameworks (Lunqvist, 2014; Meulbroek, 2002). Other studies also identified the factors that influence the adoption of ERM (Welbeck, 2015; Beasley et al., 2005; Hoyt & Liebenberg, 2003). Studies on risk management practices focused on just a segment of risk management. For instance, studies by Glaum and Roth (1993); Batten, Mellor and Wan (1993); Belk and Glaum (1990) focused on foreign exchange risk management practices of multinational companies. Also, Fatemi, Glaum and Kommunikation (2000) conducted a study on risk management practices for non-financial listed firms in German Frankfurt Stock Exchange. The

paper therefore seeks to identify ERM practices among listed firms in Ghana as well as the practices between financial and non-financial firms.

This study is organized in five sections. The second section reviews relevant literature related to this study. It addresses the concept and evolution of risk management and empirical literature review of similar works to this research. The third section addresses the methodological approaches to the study. The fourth section analyzes and discusses the results. The fifth section summarizes and concludes the results and gives directions for further research.

2. Literature Review

2.1. Risk and Risk Management

Risk is well-explained as the uncertainty about the happening of a loss (Redja, 2011). Lhabitant and Tinguely (2001) also explains that risk is an exposure to an uncertainty, where uncertainty is the occurrence of a loss. However, Kaplan and Garrick (1981) argues that risk is not only about uncertainty, but also it should be taken into account the consequences this uncertainty could have.

Fraser (2005) also explains that risk is not only about unfavourable situations but they can also be opportunities that firms can take advantage of. She further explains that without good risk management techniques, organizations cannot manage their resources effectively. Dorfman and Cather (2012) supports this argument that risk are also opportunities and threats which arise from both the internal activities and external relations of a firm to its stakeholders, regulatory bodies, customers, suppliers and other factors. The severity of risk is expressed as its likelihood and impact of an event.

Shimpi (2001) states that every organization faces risk and this can occur at any time. More so, risks are exposed to all individuals and organizations as a result of uncertainties, information deficits etc. individuals and businesses are therefore expected to manage their risk in other to increase value (Acharyya, 2009).

Risk management therefore refers to a process of finding losses confronted by an institution and choosing techniques most suitable for managing these particular exposures effectively (Rejda, 2011). It is also the process of identifying, assessing, and prioritizing risks as well as the application of resources economically so that it minimizes, monitors as well as controls the likelihood and severity of uncertain actions or to take advantages of opportunities (Wenk, 2005). The effectiveness of risk management will lead to far reaching benefits to all firms, whether big or small, public or private sector (Ranong & Phuenngam, 2009).

The concept of risk management has evolved for decades. Some believe that risk management started during the ancient times when people started playing games with dice and bones (Nanda & Rhodes-Kropf, 2016). However, according to literature, risk management started during the period of World War II to the 1960s. Studies began when insurers started using insurance to manage risks. It was then proposed that such people should be called risk managers (Barlow, 1993). Risk managers realized it was impossible to manage every risk with insurance so the concept expanded to other disciplines like training and safety programmes (Nanda & Rhodes-Kropf, 2016).

There were two main strands of risk management, these includes insurance risk and financial risk. In the 1970s, financial risk gained attention as a result of variations in exchange rates, stock prices, commodity prices etc. (Dickinson, 2001). The concept of risk widened in the 1990s which concentrated on financial, operational and strategic risks (Skipper, 2008).

The studies outlined so far include financial risk management, particularly hedging using derivatives. Until the late 1970s, the main concentration in managing risk was on minimizing losses identified with pure risks such as hazard risks, and not reducing losses that are related to speculative types of risks, such as financial risk. Financial risk management was not useful until the advancement of the choosing pricing model by finance academics (Black & Scholes, 1973; Merton, 1973). This contributed to the rise of the derivatives industry, which resulted to the hedging of financial risk. In 2000, Briers developed a common theoretical framework upon which risk managers could base their work on. In 2006, Havenga tested the validity of model of risk to confirm that ERM was developing principle for managers. Even though ERM has evolved over time, it is still developing (Welbeck, 2015).

2.2. Empirical Review

Beasley (2008) states that risks continuously emerge and evolve with time; it is therefore prudent that managers understand that risk is an on-going process but not a one-time event. It goes through the process of objective setting, identification, assessment, response, and monitoring risk relating to the organization's objectives. Their results however failed to find evidence that COSO framework improves risk management effectiveness.

Leen and Sperkle (2012) found that the extent of ERM implementation is highly influenced by certain factors. These include: regulatory environment, internal factors, ownership structure, and firm and industry related characteristics. Also, they found that perceived risk management effectiveness is associated with the frequency of risk assessment and reporting with the use of quantitative risk assessment techniques.

Abul (2009) conducted a study on risk management practices among Islamic banks. Using a qualitative approach, the study found that there are three main types of risks that the Islamic banks in Brunei Darussalam facing. These are foreign-exchange risk, credit risk and as well operating risk. It also found that the Islamic banks are somewhat reasonably efficient in managing risk where risk identification and risk assessment and analysis are the most influencing variables in their risk management practices.

According to the research work by Bunmi, Fenio and Miguel (2004) on the risk management practices among commercial banks in Nigeria, their studies showed that commercial banks in Nigeria agreed that adopting risk management practices is an important concept. However, a significant proportion of the banks have no documented and structured their risk management practices; consequently, no programme or procedural guidance is available at any level. Contrary to the practices in developed countries, Regulators in Nigeria have not formulated any guidelines or procedural rules to be adopted by the Nigerian commercial banks. They revealed that banks are lacking both strategic and operational risk management practices.

Meulbroek (2002) explained that the main aim of risk management is to increase shareholder value. In the traditional system, risk management was implemented to hedge risk by using tradable derivative securities but recently, risk management encompasses all risks in an organization termed as ERM. ERM deals with identifying and assessing the overall risks affecting firms and applying plans to effectively manage those risks.

There is an evidence of changing risk management processes. Some firms focus usually on a set of financial, insurable and/or measurable activities that intimidate firms objectives (Mikes & Kaplan, 2014; Tufano, 1996). Others deal with threats that encompass nonfinancial and qualitative issues (Jordan et al., 2013; Mikes & Kaplan, 2014; Woods, 2009). The different risk management programs need the participation of workers and management. The main drive of some of these firms is the quantification-oriented calculative culture with a managerial preference towards measurement and management by numbers (Mikes, 2009). Whereas others, more skeptical about the importance and value of risk measures, stress on the learning benefits from questioning and learning from the numbers (Mikes, 2011). The types of risks that is faced by an organization helps some organizations to take much emphasis on risk management than others.

Furthermore, Acharyya (2009) established that majority of insurance companies in Kenya had adopted risk management practices in their operations and that this had a strong effect on their financial performance. Risk identification was found to be the most significant in influencing financial performance, followed by risk mitigation, risk management program implementation & monitoring and risk assessment & measurement respectively.

Agustina and Baroroh (2016) also conducted a study on how ERM influences firm value. Using annual reports data on banks listed on Indonesia markets, they found out that ERM do not have any significant impact on the value of the firm. This is because the implementation of ERM is simple because of bank compliance due to their existing regulations. They also found out profitability has positive and significant effect to firm value.

Obalola, Akpan and Abass (2014) focused on the relationship between ERM and organizational performance among Nigerian insurance industries. Using 10 insurance firms, their study spanned from 2001 to 2010. They revealed that there is a mutual relationship between the variables of ERM and performance even though individual relationships may differ.

Welbeck (2015) in his doctoral thesis investigated how anti-money laundering and firm performance influences enterprise risk management. Its main purpose was to identify how anti-money laundering compliance will improve enterprise risk management on the Ghanaian banks. The results indicate that anti-money laundering compliance improves ERM adoption whereas increase in profits will motivate banks to adopt ERM. The study further revealed that there is a statistically significant relationship between a firm's level of risk management practices and its propensity to adopt ERM.

Akotey and Abor (2013) also conducted a study on risk management in the Ghanaian insurance industry. Using a comparative case study analysis, their study assessed both life and non-life firms to determine whether there are similarities in their risk management practices. Their study concluded that there are some similarities and differences in the risk management practices of both life and non-life insurance firms. Unlike non-life firms, life insurers have clearly stated their level of risk appetite. They also revealed that the industry lacks risk personnel's that would help in managing risks and so are not proactive in their risk management process. The findings of Akotey and Abor (2013) is agreed by Kumah and Awudu (2013) who conducted a similar study among commercial banks and found significant differences in the risk management practices among the banks in Ghana.

3. Methodology

This research design for this study is qualitative. The qualitative analysis involves the use of a primary data that identifies the risk management practices among the listed firms. The primary data includes a structured questionnaire administered to thirty (30) firms comprising of both financial and non-financial firms on the Ghana Stock exchange. The questionnaire was organized to capture information such as firm characteristics, elements of risk management practices and enterprise risk management among the listed firms.

Questionnaires helps respondents to answer it at their own convenient time and to be comfortable answering questions that are confidential and those which would ordinarily have been difficult to obtain during one on one interview. In other to reduce the influence of the researcher, a closed ended questionnaire was used so as to help direct the discussion in a particular way. In addition, it also helped to moderate the strain respondents might have encountered in providing answers that mirrors their motives when are motivated and willing to participate. The questionnaire was also made up of an open-ended questionnaire which helps respondents to share much information in an unconstrained manner (Akotey & Abor, 2012). The study was pretested in other to check out that questions work as intended and are understood by individuals who are likely to respond to the questions.

3.1. Validation of the Instrument

The validity and reliability of the questionnaires was conducted for the study. There was a double check of the applicability of the findings; the researcher conducted a pilot testing of questionnaires after testing submission for

approval. After the pilot study, necessary corrections were made and suggestions incorporated to ensure further improvement in validity and reliability of the final questionnaires.

4. Findings

4.1. ERM Implementation

From the survey, it was realized that 12 firms representing 42% of the respondents have implemented ERM while 16 firms representing 58% have not implemented ERM. This shows that majority of the firms have not implemented ERM. Also, majority of the firms who have implemented ERM were from the financial sectors comprising of banks and Insurance firms. About 78% of the financial firms have implemented ERM while only 18% of the non-financial firms have implemented ERM.

The study found out that about 90% of the firms indicated that their main reason for implementing ERM was as a result of compliance to regulatory policies. Other motivations given by the firms for ERM implementation were: corporate governance pressure; competitive advantage; good business practice and the recent global financial crisis. Also, about 70% of the firms who have not implemented ERM were from the non-financial sectors. Their reason was that there is high cost of adoption in practicing ERM while others stated that their staff capacity was very low which does not help in implementing ERM and also that it was not necessary implementing ERM because their nature of job does not demand ERM because there is no risk associated with them.

4.2. Risk Management Manuals and Document

To effectively manage risks, firms should have a risk management manual which clearly states its risk policies, risk management plan and its risk appetite levels. Risk appetite is well-defined as the total amount and types of risk that an organization is prepared and able to accommodate in order to meet its objectives (IRM, 2016). Risk policy describes the risks to cover, how to manage it and control measures for implementation.

The study reveals a significant difference in the risk management practices among the financial and non-financial firms. The results show that 71% of the financial firms have a risk management manual which clearly states its risk policy and risk appetite levels. This enables them to effectively manage and control risks within an acceptable risk appetite to achieve its strategic objectives and also protect them from excessive risk exposures. However, 11% of the non-financial firms have a risk management plan. This confirms the above results of ERM implementation because of their inability to implement ERM hence their risks are treated at the Silo level reactively.

The study again revealed that firms who are practicing ERM have a risk management framework which takes them through the entire risk management process. The framework includes: Establishing context, Risk identification, risk assessment, communication and monitoring. This is true for the financial sector while the non-financial sector does not have a risk management framework because of their Silo based approach to risk management.

4.3. Independence of the Risk Management Committee

Again, the study from the survey revealed that about 72% of the financial firms have a risk management committee/ department who oversee the entire process of risk management while only 12% of the non-financial firms have a risk management committee. However, some of the financial firms who don't have a risk management committee had Credit risk department and corporate affairs department overseeing the affairs of risk management. Managing risk under the corporate affairs and credit department is not the best as it focuses on just a segment of enterprise risk management and mostly personnel under this department are not risk specialist.

It was also revealed that about 33% of the firms have a Chief risk officer as the official head of the risk management committee while others are led by the head of Compliance or corporate affairs department. The risk committee has its activities documented and they are directly responsible to the board of directors. The risk management committee also organizes special in-house training for employees on risk, risk policy, procedures, and practices. This training is mostly done by senior management and internal auditors.

4.4. Risk Governance Structure and Reporting

Risk governance denotes the bodies, rules, procedures, conventions and instruments by which decisions about risks are made and implemented while risk reporting is keeping top managers informed with decisions about risks. From the survey, the risk governance structure of most of the firms include: Board risk committee; Chief risk officer; Chief internal auditor; Compliance officer; Operational Management etc. It was also realized that most of the firms report risk information to the firm's Board of Directors and the Managing Directors and information about risks were published on the company's website or financial reports. Some of the information reported includes report on: credit risk; market risk; liquidity risk; operational risk etc. information on risks are usually reported on annual basis.

4.5. Challenges of ERM Implementation

It was also realized that most of these listed firms encountered some challenges in implementing ERM. Some of these challenges were as a result of stakeholders buying into the risk policies and procedures, lack of adequate information, forged security documents, improper records keeping, inadequate staff and organizational bureaucracies. For effective risk management, stakeholders view should be aligned with the organizations strategic objectives for effective decision making. Business units in the various organizations should be ready to give out information to the risk managers,

there should be proper records keeping ensuring accuracy in the information they received. Again, risk experts should be employed into the organization and there should be periodic training of staff to update them with risk information and also risk managers should be given some level of independence for effective risk management.

5. Discussions of Empirical Findings

The result from the survey indicates a significant dissimilarity in the risk management practices among firms in the financial sector and non-financial sector. Majority of the financial firms have implemented ERM while very few in the non-financial firms have implemented ERM. The implication is that the financial firms are likely to perform better than the non-financial firms because risk management helps them to identify, mitigate and control risk proactively. This argument is supported by Hoyt and Liebenberg (2011) who said firms who adopt ERM perform better than those who do not practice ERM. Firms who have implemented ERM did so as a result of regulatory pressure. This confirms the findings of the survey carried out by the Financial Services Authority in UK about their insurance industry (FSA, 2005, 2006) they indicated that most insurance firms respond to regulatory requirements concerning risk management reactively, instead of appreciating risk management as a good business practice. This is supported by Agustina and Baroroh (2016) who explained that banks implement ERM as a result of regulatory requirements and therefore do not improve their performance. Gessink (2012) also explained that risk management is necessary in the financial firms because their business is to managing risks.

The results from the survey also show that the financial firms are more efficient and effective in their risk management practices as compared to the non-financial firms. The financial firms have a risk management plan which openly explains the firms risk policies and risk appetite levels and helps them to manage risk in their acceptable risk appetite. Having a risk management plan is a good indication for effective risk management as it conforms to the laid down principles of best risk management practice (Akotey & Abor, 2012).

According to Beasley et al., (2008) a risk management plan helps firms to effectively manage and control risks so that it does not have any adverse effect on them but to attain its strategic objectives. The survey indicated that the non-financial firms do not have a risk management plan while most of them have not implemented ERM. This confirms the study made by Yutuwan et al., (2008) in the Malaysian construction companies. In their study they indicated that the awareness of risk management among the construction companies was very low and the result was that only 14.8% of the construction companies were practicing risk management. According to Omasete (2012), firms who have no risk management plan are exposed to higher risks which may lead to high cost because they do not have a proper way of managing risks. Standard and Poor's (2013) stated that organizations can perform poor if risks are not managed effectively.

The results of the survey revealed that the financial firms have a risk management framework that helps them through their risk management process, they also have a governance structure and clear reporting lines. This indicates that the financial firms have a clear understanding of risk management. According to COSO (2004) a good risk management system should have a framework that will serve as a guideline for their risk management process. Stan-Maduka (2010) explained that risk management plan enables business executives facilitate decision-making from policy making to the implementation of such policies in a well-timed way.

6. Conclusions

The purpose of this study was to identify Enterprise Risk Management practices among listed firms in Ghana. Using the survey method by administering questionnaires, it was found that there is difference in the ERM practices among the financial and non-financial firms. First of all, it was found that 78% of the financial firms have implemented ERM while only 18% of the non-financial firms have ERM implemented. The study revealed that firms who have implemented ERM did so as a result of compliance to regulatory requirements. ERM implementation was not very effective in most of the firms hence appropriate measure should be put in place to ensure that ERM practices are improved.

The results from the survey again revealed that most of the financial firms have risk management governance structure, risk management framework and risk management manual which clearly states its risk policy and risk appetite levels as well as a risk management framework. Most of the financial firms have risk management committee who oversee the entire process of risk management. The study therefore recommend that firms should not be interested only in implementing ERM but should adopt good measures and practices in the implementation of ERM and make sure that their practices are consistent with ERM policies and procedures and should be proactive in reviewing the policies and procedures in other to conform to the continuous changing environment. The study also recommend that risk management committee should be given some level of independence and must receive support from top managers since risk management that are supported by top managers are more likely to be successful thereby enhancing performance.

7. References

- i. Abul, H. (2009). "Risk management practices of Islamic banks of Brunei Darussalam", *The Journal of Risk Finance*, Vol. 10 Issue: 1, pp.23-37, doi: 10.1108/15265940910924472
- ii. Acharyya, M. (2009). *The Influence of Enterprise Risk Management on Insurers' Stock Market Performance: An Event Analysis*. Society of Actuaries.
- iii. Agustina, L. and Baroroh, N. (2016). *The Relationship Between Enterprise Risk Management (ERM) And Firm Value Mediated Through the Financial Performance*.

- iv. Akotey, J.O. and Abor, J. (2013). Risk management in the Ghanaian insurance industry. *Qualitative Research in Financial Markets*, 5(1), 26-42. doi:10.1108/1755417131130894
- v. Ali, F. and Glaum, M. (2000). "Risk management practices of German firms", *Managerial Finance*, Vol. 26 Issue: 3, pp.1-17, doi: 10.1108/03074350010766549
- vi. Andreas, W. and Carl, M.W. (2012). "Dealing with supply chain risks: Linking risk management practices and strategies to performance", *International Journal of Physical Distribution & Logistics Management*, Vol. 42 Issue: 10, pp.887-905, doi: 10.1108/09600031211281411
- vii. Barlow, D. (1993). The evolution of risk management. *Risk Management*, 40(4), 38.
- viii. Batten, J., Mellor, R. and Wan, V. (1993): "Foreign Exchange Risk Management Practices and Products Used by Australian Firms". In: *Journal of International Business Studies*, Vol. 24, No. 3, pp. 557-573.
- ix. Baxter, R., Bedard, J.C., Hoitash, R. and Yezegel, A. (2013). Enterprise risk management program quality: Determinants, value relevance, and the financial crisis. *Contemporary Accounting Research*, 30(4), 1264-1295.
- x. Bealsey, M. (2016). Enterprise risk management, ERM Initiative. North Carolina
- xi. Beasley, M.S., Clune, R. and Hermanson, D.R. (2005). Enterprise risk management: an empirical analysis of factors associated with the extent of implementation, *Journal of Accounting and Public Policy*, 24, pp. 521-531.
- xii. Beasley, M., Pagach, D. and Warr, R. (2008). Information conveyed in hiring announcements of senior executives overseeing enterprise-wide risk management processes. *Journal of Accounting, Auditing & Finance*, 23(3), 311-332.
- xiii. Belk, P.A. and Glaum, M. (1990). "The Management of Foreign Exchange Risk in UK Multinationals: An Empirical Investigation". In: *Accounting and Business Research*, Vol. 21, pp. 3-13.
- xiv. Black, F. and Scholes, M. (1973). The pricing of options and corporate liabilities. *The journal of political economy*, 637-654.
- xv. Bunmi C., Fenio, A. and Miguel, B.N. (2004). Risk management practices in IS outsourcing: an investigation into commercial banks in Nigeria. *International Journal of Information Management*
- xvi. Committee of Sponsoring Organisations of the Treadway Commission (COSO). (2004). Enterprise risk management framework. New York, NY: American Institute of Certified Public Accountants.
- xvii. Davenport, E. and Bradley, L. (2000). Enterprise Risk Management: A Consultative Perspective. *Casualty Actuarial Society Discussion Paper Program: Working paper 23-42* [Online]. Available at: <http://www.casact.com>.
- xviii. Dickinson, G. (2001). Enterprise risk management: Its origins and conceptual foundation. *The Geneva Papers on Risk and Insurance. Issues and Practice*, 26(3), 360-366.
- xix. Dorfman, M.S. and Cather, D.A. (2012). *Introduction to risk management and insurance*: Pearson Higher Ed.
- xx. Fraser, J.R. (2016). The Role of the Board in Risk Management Oversight. *The Handbook of Board Governance: A Comprehensive Guide for Public, Private, and Not-for-Profit Board Members*, 283.
- xxi. FSA (2003), Review of UK Insurers' Risk Management Practices, Financial Services Authority, London, October.
- xxii. FSA (2005), Insurance Sector Briefing: ICAS – One Year on, Financial Services Authority, London.
- xxiii. FSA (2006), Insurance Sector Briefing: Risk Management in Insurers, Financial Services Authority, London, November
- xxiv. Geessink, L. (2012). Enterprise risk management and bank performance during a financial crisis.
- xxv. Glaum, M. and Roth, A. (1993): "Wechselkursrisiko-Management in deutschen internationalen Unternehmungen". In: *Zeitschrift für Betriebswirtschaft*, Vol. 63, No. 11, pp. 1181-1206.
- xxvi. Gordon, L.A., Loeb, M.P. and Tseng, C. (2009) Enterprise risk management and firm performance: a contingency perspective, *Journal of Accounting and Public Policy*, 28, pp. 301-327.
- xxvii. Hoyt, R.E. and Liebenberg, A.P. (2011). The value of enterprise risk management. *Journal of risk and insurance*, 78(4), 795-822.
- xxviii. Jordan, S., Jørgensen, L. and Mitterhofer, H. (2013). Performing risk and the project: Risk maps as mediating instruments. *Management Accounting Research*, 24(2), 156-174.
- xxix. Jolly, K. (1997). *Counterparty Credit Risk Modelling: Risk Books*. Incisive Media, London.
- xxx. Kleffner, A.E., Lee, R.B. and McGannon, B. (2003). The effect of corporate governance on the use of enterprise risk management: evidence from Canada, *Risk Management and Insurance Review*, 6, pp. 53-73.
- xxxi. Kuma, S. and Awudu-Asare, Y. (2013). Risk Management Practices among Commercial Banks in Ghana. *European Journal of Business and Management*, 5(20).
- xxxii. Leen, P. and Roland F.S. (2012). The Adoption and Design of Enterprise Risk Management Practices: An Empirical Study, *European Accounting Review*, 21:3, 533-564, DOI: 10.1080/09638180.2012.661937
- xxxiii. Lhabitant, F.S. and Tinguely, O. (2001). Financial risk management: an introduction. *Thunderbird International Business Review*, 43(3), 343-363.
- xxxiv. Liebenberg, A.P. and Hoyt, R.E. (2003). The determinants of enterprise risk management: evidence from the appointment of chief risk officers, *Risk Management and Insurance Review*, 6, pp. 37-52.
- xxxv. Lundqvist, S.A. (2014). An exploratory study of enterprise risk management pillars of ERM. *Journal of Accounting, Auditing & Finance*, 29(3), 393-429.
- xxxvi. McShane, M.K., Nair, A. and Rustambekov, E. (2011). Does enterprise risk management increase firm value? *Journal of Accounting, Auditing & Finance*, 26(4), 641-658.
- xxxvii. Merton, R.C. (1973). An intertemporal capital asset pricing model. *Econometrica: Journal of the Econometric Society*, 867-887.

- xxxviii. Meulbroek, L.K. (2002). Integrated risk management for the firm: a senior manager's guide. Available at SSRN 301331.
- xxxix. Mikes, A. and Kaplan, R.S. (2014). Towards a contingency theory of enterprise risk management.
- xl. Mikes, A. (2009). Risk management and calculative cultures, *Management Accounting Research*, 20, pp. 18–40.
- xli. Nanda, R. and Rhodes-Kropf, M. (2016). Financing risk and innovation. *Management Science*.
- xlii. Obalola A., Akpan I. and Abass A. (2014). The Relationship between Enterprise Risk Management (ERM) and Organizational Performance: Evidence from Nigerian Insurance Industry.
- xliii. Omasete, C.A. (2014). The effect of risk management on financial performance of insurance companies in Kenya. University of Nairobi.
- xliv. Pagach, D. and Warr, R. (2010). The Effects of Enterprise Risk Management on Firm Performance.
- xlv. Pagach, D. and Warr, R. (2011). The characteristics of firms that hire chief risk officers. *Journal of risk and insurance*, 78(1), 185-211.
- xlvi. Ranong, P.N. and Phuenngam, W. (2009). Critical Success Factors for effective risk management procedures in financial industries. Unpublished master's thesis, Umea University, Umea, Sweden.
- xlvii. Rejda, G.E. (2011). Principles of risk management and insurance: Pearson Education India.
- xlviii. Shimpi, P. (2001). Integrating risk management and capital management *Financial Intermediation in the 21st Century* (pp. 33-57): Springer.
- xlix. Skipper, H.D. (2008). Risk management and insurance: perspectives in a global economy: John Wiley & Sons.
- I. Tufano, P. (1996). Who manages risk? An empirical examination of risk management practices in the gold mining industry. *The Journal of Finance*, 51(4), 1097-1137.
- li. Wahlström, G. (2009). Risk management versus operational action: Basel II in a Swedish context, *Management Accounting Research*, 20, pp. 53–68.
- lii. Welbeck, J.N.O. (2015). Anti-Money Laundering and Enterprise Risk Management. (Unpublished doctoral thesis, University of Ghana).
- liii. Wenk, D. (2005). Risk Management and Business Continuity: Overview and Perspectives: Hitachi.
- liv. Woods, M. (2009). A contingency theory perspective on the risk management control system within Birmingham City Council. *Management Accounting Research*, 20(1), 69-81. doi: <http://dx.doi.org/10.1016/j.mar.2008.10.003>.