UNIVERSITY OF GHANA BUSINESS SCHOOL

MASTER OF SCIENCE IN ACCOUNTING AND FINANCE

ASSESSING THE EFFECT OF RISK MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN GHANA

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A DISSERTATION PRESENTED TO THE UNIVERSITY OF GHANA BUSINESS SCHOOL, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN ACCOUNTING AND FINANCE

JULY, 2019
DECLARATION
I declare that this dissertation is produced from my research undertaken with the supervision of my supervisor and that this research work is not submitted to any other school, except for acceptable references of other sources, that are fully acknowledged.

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SIGNATURE: ……………………………….. DATE: ……………………………
DEDICATION

This work is dedicated to God Almighty for His guidance and protection granted me throughout my Masters education at University of Ghana Business School and is dedicated also to my wife Mrs Elizabeth Entwiwaa Atsakpo and my lovely daughter Selasie.
ACKNOWLEDGEMENTS

Words of mouth cannot express my sincere gratitude to the Almighty God for His grace and doings to enable me obtain a master’s degree at the University of Ghana Business School.

My gratitude and deep appreciation also goes to my wife, parents and friends for their great support during this course.

A big thank you to my supervisor, Dr. J.M. Onumah whose advice and useful suggestions have been of immense help.

Finally, to all who made it possible to complete this work, thank you all and may God bless you.
ABSTRACT

The purpose of the study was to assess the effect of risk management practices on financial performance of Insurance Companies in Ghana. The study adopted a survey research design and the target population was various managers whose activities are related to risk management in the three life and three non-life insurance companies. The sample size was 60. Respondents were selected using purposive and convenience sampling technique. A structured questionnaire was used to collect the relevant data. Findings reveal that risk identification and mitigation influence financial performance most. The regression coefficient of risk identification and financial performance is positive and significant. The regression coefficient of risk mitigation is positive and significant. The study shows that risk monitoring significantly influences financial performance though statistically insignificant. The study also reveals that the regression model was significant. The findings showed that all the three risk management practices were significant in influencing financial performance and therefore the conclusion of this study is that insurance companies should adopt in their risk management, efforts that bring together all the practices that were focused in this study. The study recommends that insurance companies should (1) adopt appropriate product pricing in line with estimated risk which would eventually increase profitability, (2) embrace the use of risk identification practices to help them in risk management by ensuring that opportunities are maximized and increase financial performance of the firms through setting premiums commensurate to getting high profits once they have identified frequency and severity of given risks, and (3) also structure their products or set competitive premiums to curb competition faced from rivalries, hence avoid losing customers to those competitors.
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study
Risk management is a crucial issue, not only for the survival and profitability of the insurance industry, but also for the socio-economic growth and development of the whole economy. As major risks underwriters, insurance companies need to adopt good practices or quality measures in the management of financial risk (Akotey and Abor, 2011).

Risk if not well managed could lead to collapse for most organizations especially those whose core business deals with day to day handling of risk. Risk management should, therefore, be at the core of an organization’s operations by integrating risk management practices into processes, systems and culture of the entire organization. This involves identifying and analysing risks, developing and implementing risk handling techniques and monitoring the progress of these in order to avoid and/or reduce the impact of risk on the financial performance of the firm (Omasete, 2014).

Insurance companies are in the business of taking risks and Worldwide these companies write policies that deal with specific risks, and in many cases, even underwrite exotic risks. In carrying its core activities, i.e., pricing, underwriting, claims handling and reinsurance management, an insurer will face a wide range of risks which are often interlinked and if not properly managed, could threaten the ability of the institution to achieve and sustain its viability. Therefore, obtaining coverage for every insurable risk is being replaced by the risk management concept. Risk management, which includes insurance coverage, is intended to minimize the costs associated with assuming certain types of risk and providing prudent protection. It deals with
pure risks that are characterized by chance occurrence and that may only result in a financial loss (Arif et al., 2015).

Poor management of risk, by insurance companies, leads to accumulation of claims from the clients hence leading to increased losses and hence poor financial performance (Magezi, 2003). Risk management activities are affected by the risk behaviour of managers. A robust risk management framework can help organizations to reduce their exposure to risks, and enhance their financial performance (Iqbal and Mirakhor, 2007). Further; it is argued that the selection of particular risk tools tends to be associated with the firm’s calculative culture – the measurable attitudes that senior decision makers display towards the use of risk management models. While some risk functions focus on extensive risk measurement and risk based performance management, others focus instead on qualitative discourse and the mobilization of expert opinions about emerging risk issues (Mikes and Kaplan, 2014).

Risk management is a process of identifying loss exposures faced by an organization and selecting the most appropriate techniques for treating such exposures (Rejda, 2003). There are many techniques available for insurance companies to manage risks. These include: loss financing, risk avoidance and loss prevention and control (Arif et al., 2015). Management of insurance companies is argued to carefully judge the insurable risks so as not to incur excessive losses in settling claims. Managing risks is an important factor which insurance companies must attend to if they are to achieve financial performance. Insurance companies apply various techniques to manage risks. Some of their risks are re-insured by some companies abroad (Meredith, 2004).

The companies have been characterized by low risk transfers, low levels of loss prevention and control and are not avoiding highly insurable risks (Rejda, 2003). Kadi (2003) also stated that
most insurance companies are accepting to cover all the insurable risks without first carrying out proper analysis of the expected claims from the clients and they have not put in place a mechanism of identifying various methods of reducing risks. They have accumulated claims from clients and this has led to increased losses (Magezi, 2003). He further stated that loss ratios have consistently increased and therefore hindering financial performance.

Risk is inherent in every business, but organizations that embed the right risk management strategies into business planning and performance management are more likely to achieve their strategic and operational objectives. Risk taking is core to the Insurance Company’s business, and the risks mentioned earlier are an inevitable consequence of being in business. The insurance’s aim is therefore to achieve an appropriate balance between risk and return and minimize potential adverse effects on its performance. This requires more dynamic and sound Risk Management methods to perform well in an ever dynamic and highly competitive insurance industry, which will translate into having a competitive advantage and thus generate growth in profits (Adrian, 2014).

Financial performance can be measured through evaluating a firm’s profitability, solvency and liquidity. A firm’s profitability indicates the extent to which a firm generates profit from its factors of production. Financial performance can be measured by monitoring the firm’s profitability levels. Zenios et al. (1999) states that profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business through the use of profitability ratios. The return on equity (ROE) and the return on assets (ROA) are the common measures of profitability. By monitoring a firm’s profitability levels, one can measure its financial performance.
Standard and Poor’s (2013) identifies poor liquidity management, under-pricing and under-reserving, a high tolerance for investment risk, management and governance issues, difficulties related to rapid growth and/or expansion into non-core activities as main causes of financial distress and failure in insurance companies. It is important that these factors be managed efficiently by insurance companies, to avoid financial failure and bankruptcy to the firm.

Proper risk management is important in the daily operations of any insurance company to avoid financial losses and bankruptcy. This is in line with Jolly (1997) contribution that preventing losses through precautionary measures is a key element in reducing risks and consequently, a key driver of profitability. The efficiency of risk management by insurance companies will generally influence their financial performance. Gold (1999), asserts that insurance companies could not survive with increased loss and expense ratios.

Generally, company operations are prone to risks and if the risks are not managed the firm’s financial performance will be at stake. Firms with efficient risk management structures outperform their peers as they are well prepared for periods after the occurrence of the related risks.

1.2 Statement of the Problem
Insurance firms continue to grow day in, day out and many people have changed their negative attitude towards insurance. This positive attitude has led to high growth in capital of insurance industry and hence increased its strength. Insurance firms are in the core business of managing risk. The firms manage the risks of both their clients and their own risk. This requires an integration of risk management into its core business activities, systems, processes and culture.

Insurance firms have for a long time contributed to the development of economies, particularly in the developing countries. Unfortunately, these firms face numerous challenges associated with risk management practices. According to Agyei and Yeboah (2011), some financial institutions
have had difficulties in growth of their profitability and some end up closing their doors; probably inadequate risk management policies and practices are the major causes of failures and poor performance of these firms. Bandara and Weerakoon (2012) assert that risk management is important in insurance firms as it is the backbone of success but a few studies have been conducted concerning relationship between risk management practices and financial performance. It is unclear the extent to which performance of insurance firms can be linked to risk management practices.

A study by Aron Risk Solutions and Wharton School in 2011 revealed an existence of a positive relationship between the maturity of a firm’s risk management framework and its financial performance. The findings of the study reflect that higher risk maturity is associated with improved ROA and stock performance for most firms. Ernst & Young (2012) also reinforces this point of view by suggesting that companies with more mature risk management practices outperform their peers financially, and tend to generate the highest growth in revenue.

A study in the Netherlands by Laeven & Perotti (2010) has shown that the last financial crisis has had dramatic impact on the solvency level of insurance companies. The actual solvency capital was on a level above 300% of the required solvency level before the crisis and dropped dramatically in the years 2007 and 2008. Various individual insurance companies dropped to the level, or below, of the bare minimum requirements of solvency capital as stated by the Dutch Central Bank.

Evidence found in earlier studies show that insurance companies have suffered in different extends during the recent crisis. Some insurance companies had some setbacks and decreasing surplus, while other companies had to be bailed out by the government to prevent default (example: AIG (Eling & Schmeiser, 2010); Laeven & Perotti, 2010)). This shows the impact of
the crisis on insurance companies. The question now rises whether or not the effects of the crisis could have been diminished by having Risk Management system in place during the crisis. Academics and industry experts argue that risk management is beneficial for insurance companies for several reasons. Risk management helps by decreasing earnings and stock price volatility, increasing capital efficiency, reducing external capital costs, and creating synergies between different risk management activities (Cumming & Hirtle, 2001; Lam, 2001; Meulbroek, 2002; Beasley, Pagach & Warr, 2008; Hoyt & Liebenberg, 2011).

Based on the review of Amaya and Memba (2015; Darzi, (2011); Ndwiga, et al., (2012); Saunders & Allen, (2002); Vaughan and Vaughan (2008); Ndwiga, et al., (2012) and Saleem & Abideen, (2011), it is apparent that the findings are controversial, in that risk management practices show a negative relationship to performance of firms in some studies while in other studies positive relationship is seen. According to Padachi and Howorth (2013), previous studies have shown that enterprises tend to avoid the study of financial and business risk management and hence the major reason for their poor financial performance.

This study therefore sought to assess the effect of risk management practices on financial performance of Insurance Companies in Ghana.

1.3 Research Objectives
The main objective of the study is to assess the effect of risk management practices on financial performance of Insurance Companies in Ghana.

The specific objectives of the study include;

1. To determine the extent to which risk identification affects the financial performance of insurance companies in Ghana.

2. To find out the extent to which risk assessment affects the financial performance of insurance companies in Ghana.
3. To establish the extent to which risk mitigation affects the financial performance of insurance companies in Ghana.

4. To examine the extent to which risk monitoring affects the financial performance of insurance companies in Ghana.

1.4 Research Questions
The following research questions were developed:

1. To what extent do risk identification affects the financial performance of insurance companies in Ghana?

2. To what extent do risk assessment affects the financial performance of insurance companies in Ghana?

3. To what extent do risk mitigation affects the financial performance of insurance companies in Ghana?

4. To what extent do risk monitoring affects the financial performance of insurance companies in Ghana?

1.5 Significance of the Study
The findings of study will provide both theoretical and practical implications in that they helped in establishing how risk management practices are of significance to insurance firms and influenced the firms in application of risk management practices in their operations. The study would contribute to existing literature on effect of risk management on financial performance insurance companies. The study would further benefit management of the insurance companies since they helped the managers come up with sound decisions in the management of their firms’ finances using the best practices in improving their profitability.

Management could be interested in identifying indicators of success and failure to take the necessary actions to improve the performance of the company and choose the right decisions.
Government might be concerned in knowing which companies operate successfully or failed to take the necessary measures so as to avoid crises of the bankruptcy in these companies. Investors could be fascinated in such studies in order to protect their investment, and directing it to the best investment. Customers may possibly involve in knowing the ability of insurance companies to pay their obligations based on the indicators of success of the companies. The study would assist to future researchers who would want to conduct related topic as would get ready materials for literature review.

1.6 Scope and Limitation of the Study
The study covered the effect of risk management practices on the financial performance of insurance companies. The study was conducted on both life and non-life insurance companies in Ghana. Due to this reason, a large sample size would be used to be representative of all insurance companies in Ghana. The financial data that was used to assess the financial performance of the insurance companies covered 2013-2017 financial statements. The researcher anticipates that access to primary data that was required to achieve the research objectives might be of challenge since some of the respondents may feel that data provided might be made available to other parties. However in the mist of these challenges the researcher would conduct a successful study.

1.7 Organization of the Study
The study was divided into five chapters. Chapter one, which is the introductory chapter, gave the background of the study, problem statement, purpose of the research, research question and scope and limitation of the study and organizational of the study. The chapter two deals with the literature review and it involves the theoretical framework for the study and part two which is the conceptual framework of the research. Chapter three highlights the methodology used in collecting data and the analysis of the data. It covers sub topics such as area of the study, population, sampling size and sampling procedures used, data collection made, sampling
techniques, data analysis and research findings and research constraints. Chapter four consist of presentation of research findings and discussion of findings whiles the concluding chapter, which is chapter five summarizes the research findings and gives conclusion emanate from the study as well as the recommendation made by the researcher.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature related to the study. The review covers conceptual review, theoretical review, empirical review as well as conceptual framework.

2.2 Concepts and Definitions

2.2.1 Risk
Horcher (2005) states that risk and exposure are closely linked and often used interchangeable. Risk is defined as the probability of loss, while exposure is defined as the possibility of loss. Risk arises as a result of exposure. Financial market exposure can lead to losses but also to opportunities for gain or profit. Risk is the likelihood of losses occurring from the exposure to the market and changes within the market. Since every organization exists to provide value for its stakeholders, every organization needs to have a level of exposure to create opportunities for gain and profit. Insurance companies face two types of risk: financial risk and non-financial risk (Ai & Brockett, 2008). Over the past years the financial risks have become more important.

Financial risk refers to risk involved with capital and financial market (Ai & Brockett, 2008). The financial market risk is associated with fluctuations in value of traded assets (McNeil, Frey & Embrechts, 2005) and consists of interest rate risk, commodity risk, and foreign exchange risk. The credit risk is the risk of not receiving the promised repayments on outstanding investments, because of default of the borrower (McNeil et al., 2005) It is also known as default risk (Ai & Brockett, 2008).
There are multiple types of non-financial risks: Hazard risk, operational risk and strategic risk (Ai & Brockett, 2008). Hazard risk refers to physical risks like theft, fire, liability claims, business interruptions, etc. Operational risk is a broad concept and is defined by the Basel Committee on Banking Supervision (2004) as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This include internal and external fraud, products and business practices, damage to physical assets, business disruption and system failures, and execution, delivery and process management. Strategic risk is closely related to the firm’s overall strategies. Reputation risk, competition risk and regulatory risk are included in the strategic risk. To prevent losses to occur from these risks, multiple forms of risk management can be implemented.

2.2.2 Risk Management
Risk is defined as the uncertainty associated with a future outcome or event (Banks, 2004). It is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event (Douglas & Wildavsky, 1982). Rejda (2008) defines risk management as the process through which an organization identifies loss exposures facing it and selects the most appropriate techniques for treating such exposures.

According to Saleem and Abideen (2011), risk management involves identifying, analyzing, assessing, monitoring and controlling risks hence leading to better process of decision making. Saleem and Abideen (2011), further assert that organizations which use risk management practices have high financial performance and a high competitive edge in the market. According to Amaya and Memba (2015), insurance firms manage risks transferred to them by other persons after agreeing to compensate the persons in the event of financial losses. Amaya and Memba (2015) further assert that insurance provides protection to persons
against an insured event by paying a predetermined sum of money in case that event happens. This allows persons to protect themselves against financial losses which require risk management and financial performance analysis. What Amaya and Memba (2015) did not mention is that most organizations do not embrace use of risk management nor do they have a documented risk management policy and hence they are not in a position to deal with risks accordingly or systematically which eventually leads to negative effects (Saleem & Abideen, 2011). This inadequacy called for the current study on effects of risk management on financial performance of insurance companies.

In risk management, a prioritization process must be followed whereby the risk with the greatest loss and greatest probability of occurrence is handled first and risk with lower loss are handled later (Kiochos, 1997; Stulz, 2003). There is however, no specific model to determine the balance between risks with greatest probability of loss and those with lower loss, making risk management difficult. Banks (2004) notes that the key focus of risk management is controlling, as opposed to eliminating, risk exposures so that all stakeholders are fully aware of how the firm might be impacted.

Insurance companies borrow heavily from the risk management process suggested by Kiochos (1997). According to Kiochos (1997), the risk management process involves four steps: identifying potential losses, evaluating potential losses, selecting appropriate risk management techniques for treating loss exposures and implementing and administering the risk management program. Kimball (2000) concurs that risk management is the human activity which integrates recognition of risk, risk assessment, developing strategies to manage it and

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mitigation of risk using managerial resources. Generally, a proper risk management process enables a firm to reduce its risk exposure and prepare for survival after any unexpected crisis.

### 2.2.3 Financial Performance
Financial performance can be measured through evaluating a firm’s profitability, solvency and liquidity. The Return on Equity (ROE) and the Return on Assets (ROA) are the common measures of profitability. By monitoring a firm’s profitability levels, one can measure its financial performance. Solvency measures give an indication of a firm’s ability to repay all its indebtedness by selling all of its assets. It also provides information about a firm’s ability to continue operating after undergoing a major financial crisis. Quach (2005) states that solvency measures the amount of borrowed capital used by the business relative to the amount of owners’ equity capital invested in the business as an indication of the safety of the creditors interests in the company.

According to Amaya and Memba (2015), examining financial performance calls on identifying financial strengths and weaknesses of an institution which involves looking at the association of items in profit and loss account plus balance sheet. Insurance companies help other persons in spreading their financial risks just by paying small amounts of money which when put together as a group makes a pool, from which those who will suffer losses will be paid. According to the study, examining financial performance of insurance companies was crucial since insurance companies form a financial intermediation in the economy. By financial intermediation, capital is accumulated into a nation’s economy because money contributed by customers of insurance companies is put into projects which are long term in nature ensuring that a pool of money is accessed by borrowers when they need it for investment, usually done in stock exchange where they easily meet with savers hence reducing
risks involved if borrowers and savers deal directly among themselves (Darzi, 2011). Liquidity indicates a firm’s ability to meet its financial obligations as and when they mature without disrupting the normal operations of the business. According to Quach (2005), liquidity can be analysed structurally and operationally. Further, operational liquidity refers to the cash flow measures while structural liquidity refers to the composition of the balance sheet.

The incidence and relative magnitude of internal or external disruptions to business activities from risk events also vary considerably across firms depending on the nature of activities and the sophistication of internal risk measurement standards and control mechanisms. While companies should generate enough expected revenues to support a net margin that absorbs expected risk losses from predictable internal failures, they also need to hold sufficient capital reserves to cover the unexpected losses or resort to insurance (Zsidisin, 2003). This ensures that losses do not impact negatively on the firm’s financial performance.

**2.2.4 Risk Management and Financial Performance**
The main focus of risk management has mainly been on controlling and for regulatory compliance, as opposed to enhancing financial performance (Banks, 2004). However, risk management often leads to enhanced financial performance as regulatory compliance and control of risks enable the organization to save on costs. Banks (2004) further suggests that by managing risks, the managers are able to increase the value of the firm through ensuring continued profitability of the firm.

Standard and Poor’s (2013) identifies poor liquidity management, under-pricing and under-reserving, a high tolerance for investment risk, management and governance issues,
difficulties related to rapid growth and/or expansion into non-core activities as main causes of financial distress and failure in insurance companies. It is important that these factors be managed efficiently by insurance companies, to avoid financial failure and bankruptcy of the firm. The 21st century has seen great efforts to risk management. Babbel and Santomero (1997) note that insurers should assess the various types of risks they are exposed to and devise ways of effectively managing them. They further suggest that insurers should accept and manage at firm level, only those risks that are uniquely a part of their services. This will reduce their risk exposure. Stulz (2004) suggested that risk management is a viable economic reason why firm managers might concern themselves with both the expected profit and the distribution of firm returns around their expected value, hence providing a rationale for aligning firm objective functions in order to avoid risk.

Proper risk management is important in the daily operations of any insurance company to avoid financial losses and bankruptcy. This is in line with Jolly’s (2007) contribution that preventing losses through precautionary measures is a key element in reducing risks and consequently, a key driver of profitability. The efficiency of risk management by insurance companies will generally influence their financial performance. Gold (2009) asserts that insurance companies could not survive with increased loss and expense ratios. Generally, company operations are prone to risks and if the risks are not managed the firm’s financial performance will be at stake. Firms with efficient risk management structures outperform their peers as they are well prepared for periods after the occurrence of the related risks. This study hopes to come up with an expected positive relationship between risk management and performance of insurance companies.
2.3 Theories of Risk Management Practices

2.3.1 Stakeholder Theory
Stakeholders are persons who create wealth for organizations and also include beneficiaries plus persons exposed to risks arising from what the organizations do (Mahoney, 2014). According to Mahoney (2014), stakeholders comprise of the organization, management, shareholders, suppliers, employees, local community and clients. According to Freeman (2012), each of these stakeholders affect (or benefit from the other; for example shareholders have a financial interest in the organization and employees have an interest of security and salary from the same organization as the organization expects to get labour from the employees. On the other hand the organization depends on suppliers for inputs to produce quality goods as suppliers depend on them for payment because organizations are their customers.

Reynolds, Schultz, and Hekman (2006) assert that stakeholder theory helps managers in making decisions on how they can balance interests of all stakeholders of organizations to ensure that they maintain the support they receive from the stakeholders. According to Reynolds et al. (2006), balancing interests of stakeholders is done where managers distribute scarce resources to those who have claims from the organization.

2.3.2 Enterprise Risk Management Theory
According to Tseng (2007), Enterprise Risk Management (ERM) is a framework that focuses on adopting a systematic and consistent approach to managing all of the risks confronting an organization. Gordon, Loeb & Tseng (2009) on the other hand define ERM as the overall process of managing an organization’s exposure to uncertainty with particular emphasis on
identifying and managing the events that could potentially prevent the organization from achieving its objective.

In conducting ERM, the following are listed as some of the areas or aspects of the organization that a risk manager needs to look into: the people, intellectual assets, brand values, business expertise and skills, principal source of profit stream and the regulatory environment (Searle, 2008). This will help organization to balance the two most significant business pressures; the responsibility to deliver effective services to stakeholders and the risks associated with and generated by the business itself in a commercially achievable way. By doing so, the risk manager is constantly aware of the risks he/she faces and therefore constantly monitors the exposure and is positioned to change strategy or direction to ensure the level of risks taken is acceptable.

ERM was developed by COSO in 2004 to address risk management issues related to an organization. The frame encompasses all components of internal control frame work, but adds also the components of objective setting, event identification and risk response (Rittenberg, 2005). COSO (2011) emphasizes the importance of objective setting in the entity and relates it to risk assessment as a precondition. However it should be emphasized that the company’s internal control framework should be established in order to have reasonable assurance to achieve established objective, risk identification and analysis. In evaluating the effectiveness of internal control activities, it is essential to assess them against entity’s objectives and related risks. Internal control should provide for an assessment of the risks the agency faces from both internal and external sources. Once risks have been identified, they should be analyzed for their possible effects. Management then has to formulate an approach for risk management and
decide upon the internal control activities required to mitigate those risks and achieve the internal control objectives of efficient and effective operations, reliable financial reporting, and compliance with laws and regulations. The objective of financial reporting of an entity is to ensure the production of accurate, complete, relevant, timely and reliable financial information to demonstrate and maintain accountability, to meet statutory reporting requirements, as well as account to the stakeholders of an organization about the financial performance of the firm (CIPFA 2002:24). Cebenoyan and Strahan (2004) find evidence that banks which have advanced in risk management have greater credit availability, rather than reduced risk in the banking system.

The greater credit availability leads to the opportunity to increase the productive assets and bank’s profit. Schroeck (2002) and Nocco and Stulz (2006) stress the importance of good risks management practices to maximize firms’ value. In particular, Nocco and Stulz (2006) suggest that effective ERM has a long-run competitive advantage to the firm (or banks) compared to those that manage and monitor risks individually. Schroeck (2002) proposes that ensuring best practices through prudent risk management results in increased earnings. The survival and success of a financial organization depends critically on the efficiency of managing these risks (Khan & Ahmed, 2001). More importantly, good risk management is highly relevant in providing better returns to the shareholders (Akkizidis & Khandelwal, 2007; Al-Tamimi & Al-Mazrooei, 2007). In addition, prudent risk management by financial institutions is the hallmark to avoid financial distress that could lead to a full blown financial crisis.
2.3.3 Contingency Planning Theory
Contingency planning (CP) also known as business continuity planning is a crucial element of risk management. The fundamental basis of CP is that, since all risks cannot be totally eliminated in practice, residual risks always remain (Henderson, 1980). Despite the organization’s very best efforts to avoid, prevent or mitigate them, incidents will still occur. Situations, combinations of adverse events or unanticipated threats and vulnerabilities may conspire to overwhelm even the best information security controls designed to ensure confidentiality, integrity and availability of information assets (Hinson & Kowalski, 2008).
In the context of this study, CP is defined as the totality of activities, controls, processes, plans etc. relating to major incidents and disasters. It is the act of preparing for major incidents and disasters, formulating flexible plans and marshaling suitable resources that will come into play in the event, whatever actually eventuates. The very word ‘contingency’ implies that the activities and resources that will be required following major incidents or disasters are contingent (depend) on the exact nature of the incidents and disasters that actually unfold. In this sense, CP involves preparing for the unexpected and planning for the unknown. The basic purpose of CP is to minimize the adverse consequences or impacts of incidents and disasters (Odhiambo & Waiganjo, 2014).

2.3.4 Multivariate Theory
Powell (2008) asserts that multivariate analysis involves the examination of two or more variables at the same time and then considering their interactions as predictors of losses in insurance industry. According to Nyce (2007), multivariate analysis includes advanced regression and time series models which are used by business firms to predict the trends or relationships of balance sheet and profit and loss account items which enable them to know
likely situations in the future. Nyce (2007) confirmed that insurers depend heavily on estimating the activities in future. This estimation helps them to avoid adverse selection which is a situation where those who buy insurance are individuals with high chances of encountering big perils with higher claims than premiums paid. According to Nyce (2007), traditionally, insurers calculated premiums using univariate analysis which involves one factor analysis like use of only the age of an insured. But because of technology, multivariate analysis which involves many factors is nowadays used to get the premiums. This has led to predictive analytics used to determine the additional information required to get the premium (Nyce, 2007). The results produced by predictive analytics show the likely occurrences with most results showing higher probability of the event occurring.

Adams and Buckle’s (2003) study in the Bermuda market examined the determinants of corporate financial performance and found that highly leveraged, lowly liquid companies had better operational performance than lowly leveraged, highly liquid companies and that performance was positively related to underwriting risk, suggesting that actuarial and operational risks are well managed. These results confirm those of Adams (1996) for the New Zealand market and Akotey et al, (2013) for the Ghanaian market. Charumathi (2012), Chen and Wong (2004) and Chen et al, (2009) however contradict these findings where they established that size is positively related to profitability while premium growth, leverage and equity capital are negatively related. Shiu’s (2004) study on the U.K. general insurance industry revealed that liquidity, unexpected inflation, interest rate level and underwriting profits were statistically significant determinants of the insurers’ performance. Choi (2010) also tested the relationship between firm size, age, and growth for the U.S. property and
liability insurance industry and found that young firms grow faster than old firms during the sample periods thus impacting on their financial performance.

2.3.5 Agency Theory
Agency theory extends the analysis of the firm to include separation of ownership and control and managerial motivation. According to Ndungu and Njeru (2014), agency theory tends to depict relationship between principal and agent doing business together and helps to solve problems between the principal and agent usually called agency problems arising from having goals that are not the same. The other problem is when principal and agent do not have similar attitudes towards business risks hence they make decisions which are not similar (Ndungu & Njeru, 2014). To avoid differences, principals make goals which agents are required to follow. Smith and Stulz (1985) suggest agency problems have been shown to influence managerial attitude towards risk. The theory also explains a possible mismatch of interest between shareholders, management and debt holders due to asymmetries in earning distribution, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers & Smith, 1987). Agency theory provides strong support for risk management as a response to mismatch between managerial incentives and shareholder interests. Shareholders and managers have different interests towards the firm and risk management objectives vary for the different stakeholders. While shareholders may require high risk – high return investments, management prefer low risk and return investments. The agency theory emphasizes the need for risk management to align the interests of managers and shareholders and to contribute to the financial performance of the firm.
Stulz (1984) first suggested a reason for the interest in risk management by managers of a firm. He asserts that managers are presumed to be working on behalf of firm owners and therefore, concern themselves with both expected profit and the distribution of firm returns around their expected value. Managers have an inclination to avoid risk in order to minimize the variability of firm returns and hence achieve the objectives of the firm. For owners, risk management saves on agency costs since, by reducing the variability of returns of their firms, managers are working in line with the shareholder wealth maximization goal.

2.3.6 Resource Based Theory
Barney (1991) indicates that resource based theory involves analyzing of internal environment of firm which is simply analyzing strengths and weaknesses of that firm. According to Barney (1991), firms develop ways of maximizing on their strengths and thus minimizing weaknesses to have competitive advantage. According to Halawi et al. (2005), resource based theory assumes that firms create value-addition capabilities and was developed to show how firms obtain sustained competitive advantage. Poppo and Weigelt (2000) indicate that resource based theory tends to explain why different firms have different economic performance. The study further confirms that firms that manage resources better than others spend little money and offer high quality goods and services hence have better economic performance. Bridoux (2004) contends that firms may come together to build resources and increase their competitive advantage through creation of rent, yielding organizational competencies hence reducing risks associated with mobilization of such competencies. The study continues to assert that firms which make profits on top of their cost of capital are those that are in attractive industries and have established competitive advantage over their rivals.
2.4 Empirical Review

Kalluci (2011) made an investigation by analyzing the Albanian banking system in a risk performance environment with an aim of suggesting some indicators and a risk index that can be helpful to supervisors of banks when executing their duties. The findings in the study are that high risk index is attributed to high return on assets (ROA) and a well-capitalized banking system, as well as by low ROA volatility. The return on equity changes significantly owing to a change in equity multiplier and the return on assets ratio. ROA changes proportionally to the change in net interest margin and earning assets ratio, as well as the banks being unable to cover non-interest expenses with non-interest income but is negatively correlated to the rise in the loan loss provisions to total assets ratio. Net interest margin falls as a result of the increase in the cost of borrowed funds and earning assets financed by paying liabilities. In insurance industry, net interest margin falls when risk tolerance is low which can be mitigated by using premiums collected from policy owners to buy various low-risk investments, charging reasonable fees on both the policies bought and management of clients’ capital (Deakins, 1990).

A study conducted by Almajali, et al. (2012) on factors affecting the financial performance of Jordanian Insurance Companies listed on Amman stock market had objective of identifying the effect of age, leverage, liquidity and size on the financial performance of insurance companies. The study took as its sample all twenty five insurance companies listed on Amman stock market between the years 2002 and 2007. The study whose focus was on Return on Assets found out that, age of the company had no significant statistical impact on financial performance of insurance companies but leverage, liquidity, management competence and size had a significant statistical impact on financial performance of insurance companies. Mwangi and Iraya (2014) who carried out a study on determinants of financial performance of general
insurance underwriters in Kenya had a conflicting result on size of the companies since they found out that size had no significant impact on financial performance. On the other hand, Omondi and Muturi (2013) in their study about factors affecting financial performance of listed companies on Nairobi Securities Exchange in Kenya found out that liquidity had a significant positive impact while leverage had a significant negative impact on financial performance of insurance underwriters.

An examination about financial management practices, wealth maximization methods and firm value was carried out by Eriki, et al. (2012) on a sample of ten listed public banks in Nigeria from year 2004 to 2008 using ordinary least squares multiple regression and correlation to establish the relation between financial management practices and the value of stockholders wealth. Eriki, et al. (2012), found out that using correlation financial management practices in relation to either stockholders wealth or firm value was negative while by using ordinary least squares multiple regression, stockholders wealth or firm value were found to be affected by investment and dividend decisions.

Boadi, et al. (2013) conducted a study on determinants of profitability of insurance firms in Ghana using both descriptive and inferential statistics to examine a sample of sixteen insurance companies in Ghana. The findings of the study showed a positive relationship between liquidity, leverage and Return on Assets while there was a big negative relationship between tangibility and ROA. This is because liquidity helps firms to deal with unexpected contingencies and cope with obligations during low earning periods while leverage influences shareholders’ return and risk plus firm’s market value.
Olando, et al. (2013) undertook a study about the contribution of SACCO financial stewardship to growth of SACCOs in Kenya surveying 44 SACCOs in Meru County. Data collection instruments were questionnaire and document review tool using inferential and descriptive statistics. The research findings were that the growth of SACCOs is influenced by the level of innovation embraced strength of the firm and management practices. Olando, et al. (2013) recommended that SACCOs should use appropriate management practices, embrace good financing mix and the government to review its regulations to ensure SACCOs use institutional capital for their growth. According to Padachi & Howorth (2013), three of the most frequently investigated financial management techniques relate to financial and business risk adjustment, capital budgeting and working capital management.

A study was carried out by Magali (2014) about the influence of leadership, corporate governance and regulations on credit risk management, through a survey of rural financial institutions in Tanzania and using a sample of 37 rural financial institutions from Dodoma, Morogoro and Kilimanjaro regions between February and May 2013. The research findings were that corporate governance, good leadership and government regulations while avoiding influence from politics led to acceptable credit risk management in the rural financial institutions.

Pignanelli and Csillag (2008) made an investigation about the impact of risk management on profitability by sampling 31 institutions which are known by the National Quality Award of Brazil over a period of 10 years. Data was collected from firms in the same sector making a total of 5354 respondents. According to theories used in this study, controversial relationships were found to exist between profitability and risk as those organizations that embraced quality management showed no evidence of profitability which was supposed to be the case. This was
so because the researchers analyzed firms that were only recognized by National Quality Award of Brazil hence ignoring other firms in their sample that were important to confirm the assertions empirically and hence recommended further studies on the same topic by use of a larger sample of firms and include sectors which embrace risk management practices.
2.5 Conceptual framework

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk identification</td>
<td>Financial performance of insurance companies</td>
</tr>
<tr>
<td>Risk assessment</td>
<td></td>
</tr>
<tr>
<td>Risk mitigation</td>
<td></td>
</tr>
<tr>
<td>Risk monitoring</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.1: The Framework

2.5.1 Risk Management Practices by Insurance Firms

According to Saleem and Abideen (2011), risk management involves identifying, analyzing, assessing, monitoring and controlling risks hence leading to better process of decision making. Saleem and Abideen (2011) further assert that organizations which use risk management practices have high financial performance and a high competitive edge in the market. According to Amaya and Memba (2015), insurance firms manage risks transferred to them by other persons after agreeing to compensate the persons in the event of financial losses. Amaya and Memba (2015) further assert that insurance provides protection to persons against an insured event by paying a predetermined sum of money in case that event happens. This allows persons to protect themselves against financial losses which require risk
management and financial performance analysis. What Amaya and Memba (2015) did not mention is that most organizations do not embrace use of risk management practices nor do they have a documented risk management policy and hence they are not in a position to deal with risks accordingly or systematically which eventually leads to negative effects (Saleem & Abideen, 2011). This inadequacy called for the current study on effects of risk management practices on financial performance of insurance companies.

2.5.1.1 Risk Identification Practice
Risk identification is the first step in the process of risk management as one would want to know source of risk once it has occurred. According to Ndwiga, et al., (2012), methods used in identifying risks are tools used to optimize opportunities of knowing hazards inherent in certain systems, facilities or products and the tools are categorized in broad headings of inductive, deductive or intuitive methods. Once a framework for identifying risks has been put in place, methods are now used in different products, organizations, systems or situations. Once an insurance company has identified and known how small or large a risk is, it sets up a premium that a client would pay in future in case he/she transfers it to the company. According to Ocholla, et al. (2006), premiums paid by policy holders reflect partially the number of claims the insurance company encountered in the past or how large the risk transferred to insurance firm is. When computing premiums to be charged by insurance firms, the following should be considered: expected claims and some loadings which include management costs, agents’ commissions, profits for insurance, claim settlement costs and cost for the risk taken by the insurance company for accepting the uncertainties of insured person (Kahane, 1979).

2.5.1.2 Risk Mitigation Practice
Risk can never be eliminated completely and is inherent in all businesses. Risk can only be managed through selection of one or a combination of available risk management techniques
for mitigating loss exposure through risk control and risk financing (Rejda, 2008). According to Vaughan and Vaughan (2008), risk control is the process of minimizing or reducing the frequency of the firm’s exposure to uncertainty using least possible cost and suggest the following risk control techniques: Risk reduction which involves measures used to minimize the chances of a loss occurring and risk avoidance which involves decisions made not to accept a risk in situations where the potential gain is less than the potential loss as a result of high claims ratio.

According to Rejda (2008), risk financing refers to techniques that provide the financing of losses while Vaughan and Vaughan (2008) assert that risk financing involves availing funds to meet losses arising from risks that remain after the application of risk control techniques. The study suggests the following risk financing techniques: Risk transfer that involves measures such as re-insurance management, risk retention that involves retaining the losses that cannot be transferred and retention which requires provisions in the firm’s balance sheet to settle the claims in the event of occurrence.

2.5.1.3 Risk Monitoring Practice
Risk monitoring is the last step in the process of risk management and is the most important duty done by risk managers as it involves frequent contact with clients who see managers as problem solvers and trusted advisors (Ndwiga, et al., 2012). It is the process that helps managers discover problems which have occurred in systems early in time through the last step in risk management process. When an appropriate risk monitoring strategy is adopted, it means that appropriate product pricing in line with estimated risk is achieved which in turn affects profitability (Saunders & Allen, 2002). According to Soyemi et al. (2014), risk managers should put in place a working management information system to help monitor levels of risk and facilitate timely review of positions of risk plus their exceptions. After risk
monitoring, control should be done through setting standards, policies and procedures that define both authority and responsibility. This ensures that exposure to risks is minimized.

2.5. 2 Financial Performance of Insurance Firms
According to Amaya and Memba (2015), examining financial performance calls on identifying financial strengths and weaknesses of an institution which involves looking at the association of items in profit and loss account plus balance sheet. Insurance companies help other persons in spreading their financial risks just by paying small amounts of money which when put together as a group makes a pool, from which those who will suffer losses will be paid. According to the study, examining financial performance of insurance companies is crucial since insurance companies form a financial intermediation in the economy. By financial intermediation, capital is accumulated into a nation’s economy because monies contributed by customers of insurance companies are put into projects which are long term in nature, ensuring that a pool of money is accessed by borrowers when they need it for investment, usually done in stock exchange where they easily meet with savers hence reducing risks involved if borrowers and savers deal directly among themselves (Darzi, 2011).

2.6 Conclusion
Although financial performance is influenced by a combination of factors facing the firm, a review of the literature provides evidence as to why firms should concern themselves with risk management. Vaughan and Vaughan (2008) provide a compelling reason for risk management by firms asserting that the primary goal of risk management by firms is for survival. Risk management guarantees the continuity of the firm as an operating entity, hence ensuring that the firm is not prevented from attaining its other goals through losses that might arise from
pure risks. It is evident that the decisions made by managers affect the risks and financial performance of an insurance company. This then emphasizes the need for a proper risk management strategy to direct the goals and interests of management to the interests of the organization.

A firm’s stakeholders also require an assurance that their interests are safeguarded by firm’s management and strategies. From the literature, it is discovered that the desire to improve financial performance should be balanced with the risks associated with the operations of the firm. This then leads to the development of a risk management program to meet the strategies of an organization.

It is apparent that the findings are controversial, in that risk management practices show a negative relationship to performance of firms in some studies while in other studies positive relationship is seen. According to Padachi and Howorth (2013), previous studies have shown that enterprises tend to avoid the study of financial and business risk management and hence the major reason for their poor financial performance. It is because of these reasons that the present research is going to study effects of risk management practices on financial performance of insurance firms in Ghana.
CHAPTER THREE

METHODOLOGY

3.1 Introduction
This chapter describes the methods and means to be employed to gather all the information collected for the study. The highlights of the discussions include research design, study population, sample and sampling techniques, data collection instruments, sources of data, ethical issues method and analysis.

3.2 Research Design
The study adopted a survey research design to accomplish the assignment per the research problem and questions set out. According to Thayer-Hart, et al., (2010), a survey research design is appropriate because primary data is collected from a sample of respondents and findings of study generalized to represent whole population where the sample was drawn from. The research design to be adopted by the research helped integrate varied attributes of the research (Blanche, Durrheim & Painter, 2006).

3.3 Target Population
Greener (2008) defines population as the universal set of all the people, units, items, or organizations that contain the characteristics of interest. The target population of this study was various managers whose activities are related to risk management in the three life and three non-life insurance companies mentioned earlier.
3.4 Sampling Technique and Sample Size

Greener (2008, pp23) defines sampling “as a practical way of studying people and their activities, thoughts, attitudes, abilities and relationship in relation to business”. The study’s sample size was 60, selecting 10 respondents from each of the 6 insurance companies. Trochim (2006) defines sampling as the process of selecting units (e.g., people, organisations) from a population of interest so that by studying the sample we may fairly generalise the results back to the population from which they were chosen.

The participants were selected by purposive and convenient sampling techniques. Saunders & Cornett (2009) defines convenience sampling as a sampling arrived at by selecting respondents that are readily available to the researcher. Convenience sampling is considered suitable for this study because of the busy nature of works of staff and management in order so select those who are readily available. Purposive sampling was used to select respondents that have adequate knowledge about the topic being researched. According to Mugenda and Mugenda (2003) a sample size which is more than 10% (of the population) is adequate to conduct a study.

3.5 Data Collection Instruments

According to many scholars, for a survey research, the main instruments used are self-administered/interviewer administered or structured/unstructured interviews and questionnaire or a combination of both (Saunders and Cornett, 2009). In this study, a structured questionnaire was used as the primary research instrument to collect data on risk management practices. A structured questionnaire contains well-formulated questions and fixed response alternatives that are directly related to the research objectives (Wegner, 2000).
Financial statements were analyzed using accounting ratios in order to measure the financial performance of the insurance companies.

3.5 Sources of Data

Both primary and secondary data collection methods were adopted. Saunders et al (2009) define primary data as data which results from the need to understand what people do as well as the frequency of their actions. The researcher used questionnaires to collect the relevant primary data. Primary data is observed or collected directly from first-hand experience such as questionnaires and interviews while secondary data is collected in the past documented materials and information locations such as journals, website, and internet, textbook for the study. Questionnaires were used to obtain information from respondents. The secondary sources of data were gleaned from articles, journals, books, internet sources and other useful documents and augmenting sources.

3.6 Reliability and Validity of the Study

According to Gardner et al. (2003), pilot study is a small-scale version of a main study that produces meaningful findings by confirming design and operational processes for the study. Pilot study was used to test reliability of questionnaire of this research. Reliability is the extent to which findings are found to be consistent over a length of time (Bashir, et al., 2008). To assess reliability of the questionnaire, pilot study was conducted on 20 respondents not included in the sample. The Reliability analysis was done using Cronbach’s Alpha to measure internal consistency by establishing whether a certain item within a scale measured the same construct. When Cronbach Alpha value is less than 0.7, it means that internal consistency is questionable (George & Mallery, 2003).
3.7 Ethical Issues

According to Cooper and Schindler (2008), in Saunders et al, 2009) defines ethics as the norms or behaviour that guide moral choices about behaviour and relationships with others. Saunders et al (2009) associate research with questions about how a researcher clarifies his or her research topic, designs his or her research and gains access to data, collects data, processes data, analyses data and writes up his or her findings in a moral and responsible manner. To satisfy the ethical principle, the researcher ensured that he gets an introduction letter from the supervisor which enabled him gather the appropriate data to conduct the study on the selected insurance companies. Therefore, the researcher ensured that he followed formal ethical approvals to ensure he conducts the study in accordance with all the prescribed ethical standards before beginning the process of data collection. Data gathered was also strictly used for academic work.

3.8 Data Processing and Analysis

To analyze the data, descriptive analysis was done using Statistical Package and Service Solutions (SPSS) version 22. According to Schreier (2012), descriptive analysis is a method that can be used to explore and examine qualitative and quantitative data in a consistent manner. The first step, before starting the actual analysis, is to familiarize oneself with the data thoroughly (Schreier, 2012). This is important to gain an overall understanding of the data. Results from the study were presented in tables and figures showing the various frequencies, percentages, means and standard deviations.

Data collected was analyzed using both descriptive and inferential statistics which involve the use of frequency tables and percentages and regression analysis. The regression model used is as follows:
Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon

where,

Y = Financial performance of insurance companies,

x_1 = Risk identification practice

x_2 = Risk mitigation practice

x_3 = Risk monitoring practice

\varepsilon = Error term and

\beta_0, \beta_1, \beta_2 \text{ and } \beta_3 \text{ are regression coefficients}
CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the results from data analysis performed. The purpose of the study was to examine the effect of risk management practices on the financial performance of Insurance Companies in Ghana. Descriptive and inferential statistics were used to discuss results of the study which were then presented in the form of tables, frequencies, percentages and regression analysis.

4.1 Response Rate

Out of a total number of 60 questionnaires administered, only 39 were completed and returned. This represents a response rate of 65%. Hence the analysis is based on the retrieved questionnaire. The response rate of 65% is considered adequate by Mugenda and Mugenda (2003) for a study and to generalize results.

4.2 General Information of the Respondents

4.2.1 Gender of Respondents

This section presents the gender of respondents and the response rate obtained from the field in figure 4.1 below.
Figure 1: Gender of Respondents

Source: Fieldwork, (2019)

As indicated in the figure above, the results reveal that 72% of respondents were males while 28% were females. This shows that females have low representation in management than their male counterparts. This gender response rates are important in this study since they have shown that the issue of gender equity is still not resolved in organizations and hence females are the most affected lot whose rate of recruitment should be increased.
4.2.2 Level of Education of the Respondents

This section presents the results on the level of education of respondents.

**Figure 2: Respondent’s Highest Level of Education Attained**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>30</td>
</tr>
<tr>
<td>Degree</td>
<td>58</td>
</tr>
<tr>
<td>Diploma</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Fieldwork, (2019)

As presented in figure 2 above, majority of the respondents have a bachelor’s degree (58%), followed by master’s degree (30%) and finally by diploma (12%). This indicates that most of those in management levels are well educated; with bachelor’s degree and above since organizations look for managers who have knowledge about risk management practices as supported by Ndwiga, *et al.*, (2012) who asserts that risk managers are involved in frequent contact with clients who see them as problem solvers and trusted advisors. Therefore level of education and qualifications helps in understanding the real process of risk management.
4.2.3 Job Designation of Respondents

The study established designation of respondents. Information obtained from the field was presented in figure 4.3 below.

**Figure 3: Job Designation of Respondents**

![Management level of respondents](chart)

Source: Fieldwork, (2019)

It was found from the results that 31% of respondents work at senior management level, 42% at middle management level and the rest 27%, work at subordinate management level. This indicates that managers at higher managerial position took part more in the study than those at the lower level of management. The result implies that number of employees continue to reduce as one climbs the ladder towards the top of an organization since top management is concerned with making decisions which are then implemented by those at lower levels who should be a good number to cope up with various assignments that would be delegated. According to Kendrick (2015), top managers are important in this study since they are the ones involved in organizations’ risk management and possessed relevant information for this study.
4.2.4 Years Worked with the Organization

This section presents the number of years that respondents worked with their organization.

**Figure 4: Years Worked within the Organization**

<table>
<thead>
<tr>
<th>Experience Level</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 years and above</td>
<td>10</td>
</tr>
<tr>
<td>6-10 years</td>
<td>24</td>
</tr>
<tr>
<td>1-5 years</td>
<td>50</td>
</tr>
<tr>
<td>Less than a year</td>
<td>16</td>
</tr>
</tbody>
</table>


An analysis of the years the respondents have been with the organization revealed that 16% had been with the organization for less than a year. On the other hand, 50% had 1-5 years’ experience with the institution, 24% had 6-10 years’ experience, with only 10% having over 11 years’ experience as indicated in figure 4. This inferred that the study represented views from respondents with varied experience and that most of the respondents have worked in management levels for a good period of time hence have enough and reliable information regarding this research.
4.3 Effects of Risk Identification Practice and Financial Performance

The first research objective was to find out the extent to which effects of risk identification practice affect financial performance of insurance firms and details of the analysis are shown in frequency results below:

4.3.1 Does Risk Identification Practice Affect Financial Performance.
In this section an assessment on whether risk identification practice affects financial performance is presented.

Figure 5. Does Risk Identification Practice Affect Financial Performance.

As indicated in figure 5 above, most respondents agree that risk identification practice affects financial performance as shown by 96%, with those disagreeing at 4%. Risk identification practice helps in risk management by ensuring that opportunities are maximized. This rhymes with assertions from Ndewga, et al., (2012) that the methods used in identifying risks are tools used to optimize opportunities of knowing hazards inherent in certain systems, facilities or products and the tools are categorized in broad headings of inductive, deductive or intuitive
methods. Once a framework for identifying risks has been put in place, methods are now used in different products, organizations, systems or situations.

4.3.2 Risk Identification Practice that Affects Financial Performance Most

Figure 6: Risk Identification Practice that Affects Financial Performance Most

As indicated in figure 6 above, it is seen that majority of respondents agreed that amount of premium set by an insurance company affects its financial performance most as shown by 64%, followed by risk severity (26%) and finally by risk frequency (10%). Probably this is because insurance companies would always set premiums commensurate to getting high profits once they have identified frequency and severity of a given risk. This result is in line with the findings of Ndwiga, et al., (2012) who asserts that once an insurance company has identified how small or large a risk is, it sets up a premium that a client would pay in future in case he/she transfers it to the company; and the moment a risk is identified, an organization comes up with strategies for tackling it hence improve financial performance while when not identified, organization will definitely experience financial loss.
4.3.2 New Premiums Collected per Year
Insurance companies tend to collect lots of premiums as much as possible with an aim of taking optimal advantage of identified risks which might impact on company’s planned figures if not tackled and eventually cause financial loss to them. The following table shows amounts of premiums that individual insurance companies collected between the years 2013 and 2017.

Table 1: New Premiums Collected per Year

<table>
<thead>
<tr>
<th>Premiums</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 million</td>
<td>8(20.5%)</td>
<td>7(18.0%)</td>
<td>8(20.5%)</td>
<td>9(23.1%)</td>
<td>7(18.0%)</td>
<td>7.8(20.0%)</td>
</tr>
<tr>
<td>1 to 3 million</td>
<td>21(53.7%)</td>
<td>20(51.2%)</td>
<td>19(48.7%)</td>
<td>21(53.9%)</td>
<td>20(51.2%)</td>
<td>20.2(51.8%)</td>
</tr>
<tr>
<td>3 to 5 million</td>
<td>1(2.6%)</td>
<td>5(12.8%)</td>
<td>1(2.6%)</td>
<td>2(5.1%)</td>
<td>5(12.8%)</td>
<td>2.8(7.12%)</td>
</tr>
<tr>
<td>5 million to 10 million</td>
<td>4(10.3%)</td>
<td>3(7.7%)</td>
<td>6(15.4%)</td>
<td>4(10.6%)</td>
<td>3(7.7%)</td>
<td>4.0(10.3%)</td>
</tr>
<tr>
<td>Less than 10 million</td>
<td>5(12.8%)</td>
<td>4(10.3%)</td>
<td>5(12.8%)</td>
<td>3(7.7%)</td>
<td>4(10.3%)</td>
<td>4.2(10.8%)</td>
</tr>
<tr>
<td>Total</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
</tr>
</tbody>
</table>


Table 1 above reveals that majority of respondents agreed that premiums collected per year by individual insurance companies were between 1- 3 million Cedis as shown by an average of 51.8 %. This is an indication that increased number of people understand importance of insurance and expect a good probability of an eventuality occurring which may cause financial losses to them. This assertion is supported by findings of Ocholla, et al. (2006), who contend that premiums paid by policy holders reflect partially the number of claims the insurance company encountered in the past or how large the risk transferred to insurance firm is.
4.3.3 Renewal Premiums Lost to Competitors per Year

The following table shows amounts of premiums lost to other insurance companies per year and the effect of premium loss to competitors.

**Figure 7: Renewal Premiums Lost to Competitors per Year**


Figure 7 above reveals that majority of respondents agreed that renewal premiums lost to competitors per year by individual insurance companies were less than 1 million Cedis as shown by 70%. This indicates clearly that there exists competition in this sector faced from rivalries and one company would lose customers to the other depending on how they have structured their products or how much they charge in terms of premium; and if an insurance company does not take it seriously, this competition can lead to its loss of profits hence poor financial performance. This assertion is supported by findings from Kahane (1979), who argues that when computing premiums to be charged by insurance firms, the following factors are taken into account: expected claims and some loadings which include management costs, agents’ commissions, profits for insurance, claim settlement costs and cost for the risk taken by the insurance company for accepting the uncertainties of insured person. Therefore risk identification practice is a pillar in influencing financial performance of insurance firms.
4.4 The Effects of Risk Mitigation Practice on Financial Performance

The study sought to find out the extent to which risk mitigation practice affects financial performance and the analysis of details is shown below:

4.4.1 Risk Mitigation Practice and Financial Performance

The following Figure shows responses made by different individuals concerning how risk mitigation practice affects financial performance of insurance companies.

Figure 8: Risk Mitigation Practice that Affects Financial Performance Most


Figure 8 above reveals that majority of respondents agreed that risk control by an insurance company affects its financial performance most as shown by 59%, followed by appropriateness of risk limits assigned (24%) and finally by appropriateness of risk standards set (17%). It is true because risk control reduces frequency of risks occurring hence reducing cost or losses which means level of profit goes up. These findings are in agreement with the findings of Rejda (2008) who asserts that risk can never be eliminated completely and is inherent in all businesses but risk can be managed through selection of available risk management techniques for mitigating loss exposure through risk control and risk financing.
4.4.2 Amount of Claims Paid per Year

The following table shows amounts of claims paid by individual insurance companies to citizens who have lost their insured assets between the years 2013 and 2017.

Table 2: Amount of Claims Paid per Year

<table>
<thead>
<tr>
<th>Claims</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 million</td>
<td>15(38.5%)</td>
<td>17(43.6%)</td>
<td>15(38.5%)</td>
<td>15.2(39.0%)</td>
<td>13(33.3%)</td>
<td>16(41.0%)</td>
</tr>
<tr>
<td>1 to 3 million</td>
<td>12(30.8%)</td>
<td>10(25.6%)</td>
<td>11(28.2%)</td>
<td>13(33.3%)</td>
<td>10(25.6%)</td>
<td>11.2(28.7%)</td>
</tr>
<tr>
<td>3 to 5 million</td>
<td>10(25.6%)</td>
<td>8(20.5%)</td>
<td>11(28.2%)</td>
<td>10(25.6%)</td>
<td>9(23.1%)</td>
<td>9.6(24.6%)</td>
</tr>
<tr>
<td>5 million to 10 million</td>
<td>2(5.1%)</td>
<td>3(7.7%)</td>
<td>2(5.1%)</td>
<td>3(7.7%)</td>
<td>4(10.3%)</td>
<td>2.8(7.2%)</td>
</tr>
<tr>
<td>Less than 10 million</td>
<td>0(0%)</td>
<td>1(2.6%)</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>0.2(0.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
<td>39(100%)</td>
</tr>
</tbody>
</table>


The table presented above reveals that majority of respondents agreed that amount of money paid as claims per year by individual insurance companies was less than one million cedis as shown by a rate of 39%. This indicates that citizens are careful on how they handle their assets since there is a reduced occurrence of accidents which would call for compensation from insurance companies. The results implies that risk control strategies employed by insurance firms ensure that clients do not lodge claims for the sake of it rather, they are required to pay a given percentage before they can be compensated for amount that remains as balance of claim.

This assertion is supported by findings of Vaughan and Vaughan (2008), that risk control is the process of minimizing or reducing the frequency of the firm’s exposure to uncertainty using
least possible cost and suggests the following risk control techniques: Risk reduction which involves measures used to minimize the chances of a loss to occur and risk avoidance which involves decisions made not to accept a risk in situations where the potential gain is less than the potential loss as a result of high claims ratio.

4.4.3 Amount of Money Paid to Reinsurance as Premiums Received Per Year

The following table shows amounts of premiums that individual insurance companies submitted to reinsurance companies as premiums ceded per year.

**Figure 9: Amount of Money Paid to Reinsurance as Premiums Ceded Per Year**

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 500 Million</td>
<td>39</td>
</tr>
<tr>
<td>300-500 Million</td>
<td>18</td>
</tr>
<tr>
<td>100-300 Million</td>
<td>16</td>
</tr>
<tr>
<td>Less Than 100 Million</td>
<td>27</td>
</tr>
</tbody>
</table>


Figure 9 above reveals that majority of respondents agreed that amount of money paid to reinsurance as premiums ceded per year by individual insurance companies was between 100 and 300 million Cedis as shown by 38%. This shows how insurance companies are cautious in risk mitigation as they transfer risks through re-insurance management and through other measures such as risk retention that involves retaining the losses that cannot be transferred.
and retention which requires provisions in the firm’s balance sheet to settle the claims in the event of occurrence.

**4.4.4 Amount of Money Received from Reinsurance Claims per Year**

Insurance companies cushion themselves from possible big losses by reinsuring what their clients have insured with them to be helped pay the clients’ claims in case of an eventuality. The following figure shows amounts of money that individual insurance companies received from reinsurance companies for claims launched per year.

**Figure 10: Amount of Money Received from Reinsurance Claims Per Year**

![Bar Chart](chart.png)


Figure 10 above reveals that majority of respondents agreed that amount of money received from reinsurance claims launched per year by individual insurance companies is above 500 million cedis as shown by 39%. This shows that insurance companies seek help when risk control techniques are overwhelmed by claims received. Reinsurance receipts are required during this period when claims to insurance companies are bigger than manageable, which is
one way of risk financing techniques that involve availing funds to meet losses arising from risks that remain after the application of risk control techniques.


The study sought to establish the extent to which effects of risk monitoring practice affects financial performance and the details are shown in the figure below. The following results show whether risk monitoring practice affects financial performance of insurance firms.

**Figure 11: Risk Monitoring Practice and Financial Performance.**

![Pie chart showing 96% Yes and 4% No](image)


Figure 11 above reveals that most of respondents agree that risk monitoring practice affects financial performance as shown by 96%, with those disagreeing being 4%. This calls for insurance risk managers to be in constant contact with clients to know their problems and
come up with ways of solving those problems to continue retaining the clients for the company. This argument rhymes with Soyemi et al.’s (2014) assertions, that, risk managers should put in place a working management information system to help monitor levels of risk and facilitate timely review of positions of risk plus their exceptions. After risk monitoring, control should be done through setting standards, policies and procedures that define both authority and responsibility which ensure that exposure to risks is minimized.

4.5.1 The Effect of Risk Monitoring Practice on Financial Performance

The following figure shows effect of risk monitoring practice on financial performance of insurance firms.

Figure 12: Risk Monitoring Practice that Affects Financial Performance Most.

![Graph showing the effect of risk monitoring practice on financial performance](Figure 12)


Figure 12 above reveals that majority of respondents agreed that product pricing by an insurance company affects its financial performance most as shown by 61%, followed by compliance with risk limits, 25% and finally by compliance with risk standards of 14%. This
concurs with findings of Saunders and Allen (2002) who contend that when an appropriate risk monitoring strategy is adopted, it means that appropriate product pricing in line with estimated risk is achieved, which in turn affects profitability. A risk monitoring strategy helps managers discover problems which have occurred in systems early in time although is the last step in risk management process.

### 4.6 Financial Performance of Insurance Firms

The study sought to establish relationship between effects of risk management practices and financial performance of insurance firms. Analysis of financial performance is shown in frequency table 4.13 below:

#### 4.6.1 Amount of Profits of Insurance Firms

The following table shows amounts of profits made by individual insurance companies between the years 2013 and 2017.

**Table 3: Amount of Profits of Insurance Firms**

<table>
<thead>
<tr>
<th>Profits</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>Average (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 million</td>
<td>0(0%)</td>
<td>1(2.6%)</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>1(2.6%)</td>
<td>0.4(1.0%)</td>
</tr>
<tr>
<td>1 to 3 million</td>
<td>9(23.1%)</td>
<td>8(20.5%)</td>
<td>6(15.4%)</td>
<td>7(18.0%)</td>
<td>8(20.5%)</td>
<td>7.6(19.5%)</td>
</tr>
<tr>
<td>3 to 5 million</td>
<td>13(33.3%)</td>
<td>12(30.8%)</td>
<td>14(35.9%)</td>
<td>13(33.3%)</td>
<td>11(28.2%)</td>
<td>12.6(55.4%)</td>
</tr>
<tr>
<td>5 million to 10 million</td>
<td>6(15.4%)</td>
<td>6(15.4%)</td>
<td>8(20.5%)</td>
<td>6(15.4%)</td>
<td>7(18.0%)</td>
<td>6.6(16.9%)</td>
</tr>
<tr>
<td>More than 10 million</td>
<td>11(28.2%)</td>
<td>12(30.8%)</td>
<td>11(28.2%)</td>
<td>13(33.3%)</td>
<td>12(30.8%)</td>
<td>11.8(30.3%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>39(100%)</strong></td>
<td><strong>39(100%)</strong></td>
<td><strong>39(100%)</strong></td>
<td><strong>39(100%)</strong></td>
<td><strong>39(100%)</strong></td>
<td><strong>39(100%)</strong></td>
</tr>
</tbody>
</table>
Table 3 above reveals that majority of respondents agreed that amount of profits made per year by individual insurance companies was between 300 and 500 million Cedis as shown by 55.38% followed by more than 1 million Cedis as shown by 30.26%. Insurance firms make huge profits since they make pools of money contributed by their clients who in turn expect compensation in case of eventualities and when there is no such eventualities, the money remains to the company as part of profit. This therefore enables insurance firms to form financial intermediation in the economy with those monies. The assertion is supported by Darzi (2011) who contends that, by financial intermediation, capital is accumulated into a nation’s economy because monies contributed by customers of insurance companies are put into projects which are long term in nature, ensuring that a pool of money is accessed by borrowers when they need it for investment, usually done in stock exchange where they easily meet with savers hence reducing risks involved if borrowers and savers deal directly among themselves.

4.6.2 Analysis of Financial Performance of Insurance firms

Ratio analysis of financial performance of insurance firms was done through the adoption of return on assets (ROA) tool. The researcher divided net income by total assets of all the insurance firms got from their financial statements over a period of five years.
Table 4: Summary of Descriptive Statistics for Return on Assets

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>MIN ROA</th>
<th>MAX ROA</th>
<th>MEAN</th>
<th>STD DEV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>10</td>
<td>1.23</td>
<td>6.12</td>
<td>3.33</td>
<td>1.56</td>
</tr>
<tr>
<td>2014</td>
<td>10</td>
<td>2.44</td>
<td>6.93</td>
<td>4.04</td>
<td>1.50</td>
</tr>
<tr>
<td>2015</td>
<td>10</td>
<td>2.44</td>
<td>8.74</td>
<td>4.82</td>
<td>2.09</td>
</tr>
<tr>
<td>2016</td>
<td>10</td>
<td>3.22</td>
<td>10.61</td>
<td>6.28</td>
<td>2.44</td>
</tr>
<tr>
<td>2017</td>
<td>10</td>
<td>4.56</td>
<td>9.93</td>
<td>7.08</td>
<td>2.00s</td>
</tr>
</tbody>
</table>


From the findings, the lowest ROA was 1.23 in year 2013 and the highest was 10.61 in year 2015. In addition a low standard deviation is a sign of lower variation in financial performance of insurance companies. There is an improvement of ROA for the insurance companies over the years which tell that they have been doing well financially.

4.7 Regression Analysis
This section presents the regression results emanating from the study. The results assisted the researcher in establishing the relationship between the variables understudied.

4.7.1 Multiple Linear Regression Coefficients
Regression Equation

\[ Y = 1.848 + 0.612X_1 + 0.648X_2 + 0.302X_3 \]

From the above regression model obtained from multiple regression analysis that was conducted, it is revealed that the constant for financial performance of insurance companies would be 1.848. It was established that a unit increase in risk identification practices in insurance companies would cause an increase in financial performance by 0.612, a unit increase in risk mitigation practices would cause an increase in financial performance of
insurance companies by 0.648 and a unit increase in risk monitoring practices would cause an increase in financial performance of insurance companies by 0.302. This shows that risk identification has the most influence on financial performance of insurance companies, followed by risk mitigation and finally risk monitoring. Risk identification and risk mitigation significantly influence financial performance of insurance companies while risk monitoring is statistically not significant despite being positive ($\beta=0.302$). The study further shows that there is a positive relationship between financial performance of insurance companies, risk identification practices, risk mitigating practices and risk monitoring practices.
Table 5: Multiple Linear Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.848</td>
</tr>
<tr>
<td></td>
<td>Risk identification practices</td>
<td>.612</td>
</tr>
<tr>
<td></td>
<td>Risk mitigation practices</td>
<td>.648</td>
</tr>
<tr>
<td></td>
<td>Risk monitoring practices</td>
<td>.302</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Risk identification practices, Risk mitigation practices, Risk monitoring practices

b. Dependent variable: Financial performance
4.7.2 Coefficient of Determination, R Square

In analyzing correlation between risk management practices and financial performance of insurance firms, Pearson correlation coefficient was used which showed that financial performance has a strong significant positive relationship with risk management practices with a Pearson correlation coefficient of 0.851 (table 6 below).

**Table 6 Coefficient of Determination, R Square**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Std error of estimate</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.851a</td>
<td>.748</td>
<td>.658</td>
<td>.744</td>
<td>.001</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Risk identification practices, Risk mitigation practices, Risk monitoring practices

b. Dependent variable: Financial performance

Table 6 above reveals that coefficient of determination, $R^2 = 0.748$ indicating that 74.8% of variation in financial performance can be explained by changes in the three studied risk management practices meaning that the remaining 25.2% can be explained by moderating variables when a further research is conducted incorporating them.
4.7.3 ANOVA Table Showing F Statistic

Table 7: ANOVA Table Showing F Statistic

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3</td>
<td>6.002</td>
<td>6.618</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>35</td>
<td>.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Risk identification practices, Risk mitigation practices, Risk monitoring practices

b. Dependent variable: Financial performance

The ANOVA table 7 above shows significance value of 0.001 which is less than 0.05 hence the model is statistically significant. The table further reveals that risk management practices significantly predict changes in financial performance of insurance firms, with F statistic being 6.618. This shows that risk management practices contributed to variance in financial performance.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The following summary, conclusion and recommendations were made from data that was collected and analyzed. The study examined the effects of risk management practices on financial performance of insurance firms in Ghana. A survey research design was adopted for the study. The study adopted convenience and purposive sampling techniques.

5.2 Summary of Findings

5.2.1 Risk Identification Practice

From the findings, it was found out that risk identification practice was the most significant variable influencing financial performance with a unit increase in risk identification resulting to 0.612 unit increase in financial performance. The regression coefficient of risk identification and financial performance was positive (\( \beta = 0.612 \)) and significant (p value =0.001), which means that risk identification is statistically significant. It was further revealed that risk identification practice helps in risk management by ensuring that opportunities are maximized and increases financial performance of insurance firms because they always set premiums commensurate to their getting high profits once they have identified frequency and severity of a given risk.

The study also established that a lot of people understand importance of insurance, expect an eventuality occurring which may cause financial losses to them and that premiums paid by policy holders reflect partially the number of claims the insurance company encountered in the past or how large the risk transferred to insurance firm is. It was further revealed that there is
competition from rivalry companies and one insurance company loses customers to the other depending on how much they charge in terms of premium hence losing renewal premiums.

5.2.2 Risk Mitigation Practice

The results indicate that risk mitigation practice was the second most significant in influencing financial performance, with a unit increase leading to an increase of 0.648 in financial performance. The regression coefficient of risk mitigation and financial performance is positive (β=0.648) and significant (p value=0.001). This implies that risk mitigation was statistically significant and has a positive impact on financial performance.

The results further reveals that risk mitigation increases financial performance because it reduces frequency of risks occurring hence reducing cost or losses which means level of profit goes up. Risk can never be eliminated completely and is inherent in all businesses but can be managed through selection of available risk management techniques for mitigating loss exposure through risk control and risk financing.

The study also showed that citizens are careful on how they handle their assets since there is a reduced occurrence of accidents which call for compensation from insurance companies. Insurance companies on the other hand are cautious in risk mitigation, for they transfer risks through re-insurance management and seek help from re-insurance companies when their risk control techniques are overwhelmed by claims received from clients.

5.2.3 Risk Monitoring Practice

The study found out that risk monitoring practice was the least significant in influencing financial performance with a unit increase in risk monitoring leading to a 0.302 increase in financial performance. The regression coefficient of risk monitoring and financial performance was positive (β=0.302) although statistically not significant (p value=0.219). The
study reveals that insurance risk managers should be in constant contact with clients to know their problems and come up with ways of solving those problems to continue retaining clients for better good of their companies.

The study further established that when appropriate product pricing in line with estimated risk is adopted, the required profitability will be achieved and therefore, risk monitoring strategy helps managers discover problems which have occurred in systems early in time although is the last step in risk management process.

The overall study revealed a strong positive relationship between risk management practices namely risk identification, risk mitigation and risk monitoring and the financial performance of insurance companies as explained by the positive correlation of $R=0.851$. In addition, a combination of risk identification, risk mitigation and risk monitoring has 74.8% ($R^2=0.748$) predictive potential for financial performance. This means 74.8% of variation in financial performance can be explained by changes in the three studied risk management practices. The value of adjusted $R^2$ is 0.658. This reveals that, the risk management practices confirmed only 65.8% of the insurance companies’ financial performance in Ghana.

Lastly from the results of ANOVA, the study revealed that the regression model is statistically significant ($p$ value=0.001), being less than the significant level of 0.05. This implies that better risk management by insurance companies leads to improved financial performance.

### 5.3 Conclusions

The study concludes that risk identification and mitigation influence financial performance most. Based on findings on the extent to which effects of risk identification practice affect financial performance of insurance firms, the study concludes that risk identification has a significant influence on financial performance of insurance firms in Ghana.
The regression coefficient of risk identification and financial performance is positive and significant. The study also reveals that a lot of people understand the importance of insurance, expect an eventuality occurring which may cause financial losses to them and that premiums paid by policy holders reflect partially the number of claims the insurance company encountered in the past or how large the risk transferred to insurance firm is; and that based on findings on the extent to which effects of risk mitigation practice affect financial performance of insurance firms, the study concludes that risk mitigation has a significant influence on financial performance.

The regression coefficient of risk mitigation is positive and significant. The study further concludes that risk can never be eliminated completely and is inherent in all businesses but can be managed through selection of available risk management techniques for mitigating loss exposure through risk control and risk financing. Again, based on findings on the extent to which effects of risk monitoring practice affects financial performance of insurance firms, the study concludes that risk monitoring significantly influences financial performance but is statistically insignificant. The study also concludes that when appropriate product pricing in line with estimated risk is adopted, the required profitability will be achieved and therefore, risk monitoring strategy helps managers discover problems which have occurred in systems early in time.

The study also concludes that the regression model was significant. The findings showed that all the three risk management practices were significant in influencing financial performance and therefore the conclusion of this study is that insurance companies should adopt in their risk management, efforts that bring together all the practices that were focused in this study.
The study concludes that there is a strong relationship between risk management practices and financial performance of insurance companies in Ghana as explained by the coefficient of determination, $R^2 = 0.748$; indicating that 74.8% of variation in financial performance can be explained by changes in the three studied risk management practices. The study finally concludes that the remaining 25.2% can be explained by moderating variables when a further research is conducted incorporating them.

5.4 Recommendations

Based on the findings and conclusions on the extent to which effects of risk identification practice affect financial performance of insurance firms,

- The study recommends insurance companies to adopt appropriate product pricing in line with estimated risk which will eventually increase profitability. This risk monitoring strategy would help managers discover problems which have occurred in systems early in time although it’s the last step in risk management process.

- The study recommends that insurance companies should embrace the use of risk identification practices to help them in risk management by ensuring that opportunities are maximized and increase financial performance of the firms through setting premiums commensurate with getting high profits once they have identified frequency and severity of given risks.

- Companies should also structure their products or set competitive premiums to curb competition faced from rivalries, hence avoid losing customers to those competitors. From the findings and conclusions on the extent to which effects of risk mitigation practice affect financial performance of insurance firms, the study recommends insurance companies to be cautious in risk mitigation by transferring risks to re-
insurance companies that would help them when their risk control techniques are overwhelmed by claims received from clients; based on the findings and conclusions on the extent to which effects of risk monitoring practice affect financial performance of insurance firms,

5.5 Suggestions for Further Studies

The present study was on effects of risk management practices on financial performance of insurance firms but never studied any moderating variables. Future researchers may undertake a similar study but incorporate moderating variables to improve level of variation in financial performance that can be explained. Future researchers may also narrow down and focus on effects of product pricing on financial performance of insurance firms.
REFERENCES


Corona, C., Saez, J. L. & Stoffel, M. (2014). Defining optimal sample size, sampling design and thresholds for dendrogeomorphic landslide reconstructions, *Quaternary geochronology, 22,*


APPENDIX

QUESTIONNAIRE
UNIVERSITY OF GHANA BUSINESS SCHOOL

The purpose of this questionnaire is to collect data for the research work titled ‘The effect of risk management practices on the financial performance of Insurance Companies in Ghana’. The data collected will be treated with utmost confidentiality and it is meant for academic purposes only.

Kindly tick (✓) or write by providing responses to the questions.

SECTION A: PERSONAL INFORMATION

1 Gender

Male [ ] Female [ ]

2 Age

18 - 23 years [ ] 24 - 29 years [ ]

30 - 35 years [ ] 36 and above years [ ]

3 Management level

Senior level management [ ] Middle level management [ ]

Subordinate management [ ]

4 Number of years working in the organization

Less than 1 year [ ] 6-11 years [ ]

1-5 years [ ] 11 years and above years [ ]

5 Level of education

Diploma [ ] Degree [ ]
SECTION B: RISK IDENTIFICATION

6. Does risk identification practice affect financial performance of insurance firms in Ghana?
   a) Yes [ ]
   b) No [ ]

7. If yes in question 5 above, how in your opinion does risk identification practice affect financial performance of insurance firms?
   a) Increases financial performance [ ]
   b) Decreases financial performance [ ]

8. In your opinion, which of the following risk identification practices affect financial performance of insurance firms most?
   a) Risk frequency [ ]
   b) Risk severity [ ]
   c) Amount of premium set [ ]

8. In the table below, please indicate number of new clients on average that your firm recruited in regard to the following years:

<table>
<thead>
<tr>
<th>Number of clients/ Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 to 3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3000 to 5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5000 to 10000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. How many clients recruited in a year do you retain on average in that year?
   a) Less than 1000 [ ]
   b) 1000 to 3000 [ ]
   c) 3000 to 5000 [ ]
   d) 5000 to 10000 [ ]
   e) More than 10000 [ ]

10. How many clients on average does your firm lose to competitors per year?
    a) Less than 1000 [ ]
    b) 1000 to 3000 [ ]
    c) 3000 to 5000 [ ]
    d) 5000 to 10000 [ ]
    e) More than 10000 [ ]

11. In the table below, please indicate the average amount of money that your company collected in total in terms of new premiums in the following years:

<table>
<thead>
<tr>
<th>AMOUNT(GHc.)/ YEAR</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One to three million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three to five million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five to ten million</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>More than ten million</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

12. How much on average does your firm collect in total in terms of renewal premiums per year?
   a) Less than one million [ ]
   b) One to three million [ ]
   c) Three to five million [ ]
d) Five to ten million [ ]
e) More than ten million [ ]

13. How much on average does your firm lose in total in terms of renewal premiums per year?
a) Less than one million [ ]
b) One to three million [ ]
c) Three to five million [ ]
d) Five to ten million [ ]
e) More than ten million [ ]

SECTION C: RISK MITIGATION PRACTICE

14. Does risk mitigation practice affect financial performance of insurance firms in Ghana?
a) Yes[ ]
b) No[ ]

15. If yes in question 13 above, how in your opinion does risk mitigation practice affect financial performance of insurance firms?

a) Increases financial performance [ ]
b) Decreases financial performance [ ]

16. In your opinion, which of the following risk mitigation practices affect financial performance of insurance firms most?

a) Risk control [ ]
b) Appropriateness of risk standards set [ ]
c) Appropriateness of risk limits assigned [ ]

17. In the table below, please indicate the average amount of money that your firm paid in total in terms of claims received in the following years:

<table>
<thead>
<tr>
<th>AMOUNT (/ YEAR)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than one million</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
One to three million
Three to five million
Five to ten million
More than ten million

18. How much on average does your firm pay in total towards reinsurance as premiums ceded per year?
   a) Less than 100 million [ ]
   b) 100 to 300 million   [ ]
   c) 300 to 500 million   [ ]
   d) More than 500 million [ ]

19. How much on average does your firm receive in total from reinsurance for claims launched per year?
   a) Less than 100 million [ ]
   b) 100 to 300 million   [ ]
   c) 300 to 500 million   [ ]
   d) More than 500 million [ ]

SECTION D: RISK MONITORING PRACTICE

20. Does risk monitoring practice affect financial performance of insurance firms in Ghana?
    a) Yes [ ]
    b) No [ ]

21. If yes in question 18 above, how in your opinion does risk monitoring practices affect financial performance of insurance firms?
    a) Increases financial performance [ ]
    b) Decreases financial performance [ ]
22. In your opinion, which of the following risk monitoring practices affect financial performance of insurance firms most?

a) Product pricing [ ]
b) Compliance with risk standards [ ]
c) Compliance with risk limits [ ]

23. How much on average does your firm pay in total towards commissions per year?

a) Less than 100 million [ ]
b) 100 to 300 million [ ]
c) 300 to 500 million [ ]
d) More than 500 million [ ]

24. In the table below, please indicate the average amount of money that your firm made in total as profits in the following years:

<table>
<thead>
<tr>
<th>AMOUNT(/ YEAR 2016</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 million</td>
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<tr>
<td>100 to 300 million</td>
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<tr>
<td>300 to 500 million</td>
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<td></td>
</tr>
<tr>
<td>500 Million to 1 million</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>More than 1 million</td>
<td></td>
<td></td>
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</tbody>
</table>

Thank you for your time and responses