UNIVERSITY OF CAPE COAST

EFFECT OF INTERNAL CONTROL SYSTEMS ON PERFORMANCE
OF COMPANIES IN THE INSURANCE INDUSTRY IN GHANA

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BY

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……………………….   Date……………………..

Name: ....

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature………………… Date……………………….

Name: ....

Co-Supervisor's Signature………………………. Date………………………

Name : ....

ii

ABSTRACT

The performance and survival of any industry in a rapidly changing environment, among other factors, depends largely upon the internal control systems (ICS) put in place. Given the critical role that ICS play in every industry, the study sought to examine the effect of ICS on performance of companies in the Ghanaian insurance industry. The five variables of ICS developed by the Committee of Sponsoring Organisations (COSO) were used as independent variables whereas the dependent variable relied on performance measures of building block model. Cross-sectional survey design was used and data were obtained from a sample of 91 out of a population of 113 using questionnaires. Stratified, simple random, purposive and oversampling techniques were adopted. Analyses of the data involved descriptive statistics, Kruskal-Wallis, Mann Whitney U Test and ordinary least square regression techniques from Statistical Product for Service Solutions version 21 (SPSS 21.0). Key findings suggested that oil and gas, lost adjustor and reinsurance firms had low levels of performance and weak ICS whereas brokerage, life and non-life insurance firms had strong ICS and high levels of performance. Findings also revealed significant difference in the risk assessment procedures of non-life and brokerage firms. The study also found that ICS significantly influenced performance. It was concluded that life, non-life and brokerage insurance companies paid much attention to their control systems. Recommendations were made to reinsurance, oil and gas, and lost adjuster firms in the industry to strengthen their information and communication systems. Non-life and brokerage firms were also advised to adopt risk assessment procedures based on their organisational context.

KEYWORDS

Internal control systems

Insurance companies

Performance

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

AAA	American Accounting Association
AICPA	American Institute of Certified Public Accountants
ANOVA	Analysis of Variance
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CEIS	Conference of European Insurance Supervisors
CoCo	Criteria of Control
COSO	Committee of Sponsoring Organisations
FEI	Financial Executives Institute
IAA	Internal Audit Agency
IAIS	International Association of Insurance Supervisors
ICS	Internal Control Systems
IIA	Institute of Internal Auditors
IMA	Institute of Management Accountants
INTOSAI	International Organisation of the Supreme Audit Institution
JIA	Japanese Insurance Authority
SOX	Sarbanes-Oxley Act
UK	United Kingdom
USA	United States of America

CHAPTER ONE

INTRODUCTION

Background to the Study

Organizations face internal and external forces that call for a strategy to help them continue to be relevant and competitive in the business environment (Strickland, 2007). The organisations' ability to meet their objectives with respect to remaining competitive and relevant rests largely on the policies and strategies as well as the effectiveness of procedures established to safeguard their operations (Kaplan, 2007). Originating from the agency theory and buttressed by the contingency theory are internal control systems (ICS) which ensure effective management of resources in addition to effective and efficient operations (Jokipii, 2009). Owing to the changing competitive surroundings, the extent to which ICS of organisations must be extensively structured to safeguard continuous increase in returns has become obvious (Ndungu, 2013).

ICS are systems made up of procedures and policies that help to safeguard a company's assets, provide trustworthy financial reporting, enhance compliance with rules and regulations and achieve efficient and effective operations (Omani-Antwi, 2009). These systems of procedures and policies, according to Gray and Manson (2011) are usually associated with internal and external communication processes of an organisation, as well as procedures for managing corporate finance, the preparation of accurate and reliable financial reports on a timely manner, and the maintenance of inventory records and properties.

The framework for internal control systems developed by the Committee of Sponsoring Organization of Treadway Commission (COSO) argue that every sound system of internal control must have five components namely: control environment, risk assessment, control activities, information and communication and monitoring of internal control (COSO, 1994). According to Pickett (2010), these components interact among each other, forming an integrated system that reacts dynamically to changing conditions. In essence, the ICS is intertwined with the entity's operating activities and is fundamental to the successful operation of the enterprise (Steinberg, 2011).

Theoretically, the positive association between the variables of internal control systems and performance is firmly grounded in the agency theory. As advocated by Sharma (1997), the agency theory is based on the assumption of separation of ownership and control wherein managers are autonomous and are likely to increase their personal gains at the expense of owners. For this reason, the agency theory stresses that in order to align managers' interests with those of the organization, firms implement management control systems, which consist of various control mechanisms, including, monitoring systems, and internal controls to resolve goal conflicts (Zimmerman, 2011).

The proponents of the contingency theory, on the other hand, posit that the best way to organize a firm is contingent on the environment in which it functions (Richard, 1992). Thus according to the contingency theory, a company would achieve its goals when it is organized based on the environment in which it relates (Richard, 2003). Consistent with COSO (1994), the contingency theory claims that different kinds of controls should be put in place to accomplish different objectives while considering the

2

business environment so as to achieve performance targets (Chenhall, 2003; Jokipii, 2009; Luft & Shields, 2003).

From the empirical perspective, the positive relationship between the COSO internal control systems variables and performance is not quite clear. Muraleetharan (2011) posits that internal control-performance relationship is influenced by some but not all of the internal control systems variables. According to Muraleetharan, risk assessment, control activities as well as monitoring of the COSO framework for internal control variables influence the positive link, while the relationship using control environment and information and communication fails to lend itself to prediction. On the contrary, results from Njeri (2014) have revealed that all elements except information and communication of the COSO framework of internal control systems predict the positive relationship.

To augment the findings of Muraleetharan (2011) and Njeri (2014), results from Europe on the study of enterprise risk management and performance have shown a negative relationship between high levels of enterprise risk management and performance (Eikenhout, 2015). Per these findings, the relationship between the elements of internal control and performance is not quite clear. To add to the foregoing discussion, the literature on ICS lacks studies on the conditions of ICS and performance as well as differences in the components of internal control systems.

Performance measures have been viewed from several perspectives by academic and professional researchers. Bourne, Neely, Mills and Platts (2003) define performance measurement as metrics used to quantify and compute an action's efficiency and effectiveness. Performance assessment, according to

3

Smith (2005), could be financial or non-financial. Financial performance measures are those which use financial performance indicators such as profit margin, return on assets and return on equity in measuring organisational performance. Non-financial performance measures, on the other hand, rely on performance indicators that are non-financial such as quality of service, resource utilisation, innovation and competitive performance (Epstein, & Manzoni, 2010).

Globally, ICS are important to the performance of the insurance industry since they play critical roles in any economy (Committee of European Insurance and Occupational Pensions Supervisors [CEIOPS], 2003). In view of its significance in insurance undertakings, the Conference of European Insurance Supervisors (CEIS) agreed, during its 118th Session, to create a working group with the task of bringing into being a framework on ICS for the insurance sector (CEIOPS, 2003). To argue further, the inspection manual of the Japanese Insurance Authority [JIA] (2012) also maintains that directors must develop a befitting system to secure the sound and appropriate management of the insurance company's business. This means that ICS are paramount to the performance of the insurance industry in the global world.

The performance of both private and public institutions in Ghana also depends largely on sound systems of internal control. To buttress this point, the then president of Ghana, Mr. J.A. Kuffour, being aware of the impact of internal control on performance, urged all public sector chief executives to develop and implement effective internal control systems at the second annual internal auditors' forum organised by the Internal Audit Agency (IAA) in Accra in 2007 (Ekow, 2007).

A case in point is the performance of companies in the Ghanaian insurance industry, one of the thriving industries with huge potential for growth (PwcGhana, 2006). Being mindful of the importance of ICS in the industry, the National Insurance Commission [NIC] (2010) stated in its annual report that the commission is preparing to issue a corporate governance and risk management code to guide industrial players in building sound and effective governance and risk management structures. According to NIC, the risk management code which will have principles on internal controls will bring significant improvement to the financial soundness, stability and profitability of the industry.

In Ghana, companies in the insurance industry are incorporated by legislation to undertake operations in one of the following: life, non-life, reinsurance, brokerage, lost adjuster, reinsurance brokerage and oil and gas (NIC, 2014). By the end of January 2014, the insurance sector in Ghana, according to insureGhana.com (2014), comprised 19 life insurance companies, 26 non-life insurance companies, 2 reinsurance companies, 63 brokerage companies, 1 loss adjuster, and 1 reinsurance brokerage and 1 oil and gas company. These companies are regulated by the Insurance Act in Ghana.

The Insurance Acts 2006, Act 724, which serves as the rules and regulations for governing the activities of companies in the insurance sector, complies significantly with the International Association of Insurance Supervisors (IAIS) Core Principles, and gives better regulatory powers to the National Insurance Commission, the regulatory body of the industry. The object of the Commission, as detailed in Act 724 is to ensure effective administration, supervision, regulation and control the business of insurance in

5

Ghana. The NIC requires companies in the sector to adopt good corporate governance practices and effective risk management strategies.

Statement of the Problem

In the ambiance of the globalization of business operations and the increasing use of information technologies, complexities of business transactions, and business risk, the role of internal controls as a corporate governance mechanism is becoming increasingly important (Jovanović & Ljubisavljević, 2011). This is because in one of the earliest contributions, Bastia (2008) maintained that the management of the complexities following globalization increased the need for adequate internal control systems which in turn control risks as well as pursue business performance.

Drawing on the agency theory, ICS play a vital role in enhancing the performance of institutions (Ahiabor & Mensah, 2013). Due to the sensitivity and crucial role of ICS, researchers have strived to evaluate its consequence on firm performance (Ejoh & Ejom, 2014; Mawanda, 2008; Muraleetharan, 2011; Noel, 2010; Oyoo, 2014; Simangunsong, 2014). Nonetheless, some of these studies are limited in scope in terms of choice of internal control dimensions used. For instance, Noel employed two components, while Mawanda and Oyoo used three out of the five variables of COSO framework of internal control systems. This makes their findings not comprehensive for decision making purposes and often generated weaker R-square. This is because COSO posits that for ICS to be effective, all five elements must work together in an inter-related and coordinated manner.

On the other hand, the known comprehensive studies in the accounting literature are very difficult to follow for the reason that they have yielded

6

different results (Muraleetharan, 2011; Widyaningsih, 2014). While the study of Muraleetharan revealed that risk assessment, control activities in addition to monitoring influence the positive association between internal controls and performance, Widyaningsih on the other hand submits that control environment, control activities and monitoring predict the positive relationship.

In addition, some of the existing studies on internal controls such as Dineshkumar and Kogulacumar (2012), Chebungwen and Kwasira (2014) and Ejoh and Ejom (2014) also suffer methodological weaknesses. These researchers focused on examining how internal controls influence performance but used only correlation method which makes their results and findings inconclusive. This is because correlation, according to Fink (2013), is appropriate to estimate associations or relationships between variables and not the extent of one variable causing or predicting the outcome of the other.

Similarly, there are few known studies that have been conducted in Ghana regarding internal control systems. These works including Gyebi and Quain (2013) and Nkuah, Tanyeh and Asante (2013) were geared towards companies other than those in the Ghanaian insurance sector. Furthermore, the very few works geared towards the insurance industry in Ghana, including Oscar-Akotey, Sackey, Amoah, and Frimpong-Manso's (2013) and Boadi, Antwi and Lartey's (2013) focused on financial performance of life insurance companies in Ghana and the determinants of profitability of insurance firms in Ghana respectively. To add to the foregoing discussion, the literature on ICS lacks studies on the conditions of ICS and performance as well as differences in the components of internal control systems.

7

The implication of the above discussion is that a gap exists in the literature concerning the effect of ICS on the performance of companies in the insurance industry, conditions of ICS and performance and differences in the ICS components among the companies in the industry. This is because, notwithstanding the importance of internal controls to the performance of organisations (Njeri 2014), there is no known study that has looked at the influence of internal control systems on the performance of companies in the insurance sector in Ghana. Therefore in a bid to fill this gap and add to the existing body of knowledge, the researcher examines the effects of the five elements of internal control systems on the performance of companies in the insurance sector in Ghana.

Objective of the Study

The general objective of this study was to examine the effect of internal control systems on the performance of companies in the insurance industry in Ghana.

Specifically, the study sought to:

1. Assess the condition of internal control systems and performance of companies in the insurance industry in Ghana.

2. Investigate whether there are significant differences in the internal control systems of companies in the Ghanaian insurance industry.

3. Examine the effect of internal control systems on performance of companies in the insurance industry.

8

Research Question

The following research question was set to achieve objective one of the study.

1. What are the conditions of internal control systems and performance of companies in the Ghanaian insurance industry?

Hypotheses

In order to achieve objective 2 and 3, the following research hypotheses were formulated. The null hypotheses 1 and 2 relate to objective 2 and 3 respectively.

H_1: There are no significant differences in the internal control variables across the various categories of companies in the Ghanaian insurance industry.

H_2: Internal control systems have no significant effect on the performance of companies in the Ghanaian insurance industry.

Significance of the Study

This study is vital in that it offers a knowledge contribution and a policy contribution. It will significantly serve as literature that would add to academic knowledge in the area of internal control systems for companies in the insurance industry in Ghana. It will also provide intuitions to support future research regarding internal control systems for companies in this sector. This is because to the best of the researcher's knowledge there has not been any prior study on the effect of internal control systems on performance of companies in the Ghanaian insurance sector.

As for the policy contribution, the owners and management of companies in the Ghanaian insurance industry can resort to the findings and

recommendations of the study to create or redefine effective internal control systems that will help the companies to achieve their performance target. It will also help the policy makers in the industry to formulate appropriate policies that will enhance growth in the insurance industry in the country.

Delimitation

This study concentrated on the effect of internal control systems on performance of companies in the Ghanaian insurance industry. For the purpose of the study, internal control systems comprised the five elements of the integrated framework of internal control systems designed by COSO. These elements include control environment, risk assessment, control activities, information and communication and monitoring. The effect of other variables such as internal audit was not considered.

The population consisted of life insurance, non-life insurance, reinsurance, brokerage, reinsurance brokerage, lost adjuster and oil and gas companies licensed to operate in the Ghanaian insurance industry for the year 2014. The study also considered the differences among the internal controls and performance of the various categories of companies in the insurance industry in Ghana. In addition, the effect of the explaining variables was assessed for only 2014 calendar year. This is because as at 2014, there was no known research that had looked at the effect of internal controls on the performance of companies in the Ghanaian insurance industry.

The performance measures were selected based on the building block model designed by Fiztgerald and Moon (1996). They included financial performance measures and non-financial measures. The financial measures focused on return on assets and liquidity. Of the two, the non-financial

10

performance measures included customer base, quality of service, flexibility, resource utilisation and innovation. Stock market performance measures were however not considered since most of the firms are not listed on the stock exchange. Therefore, the study should be viewed as such.

Limitations

Data collected on internal control systems and performances were based on personal assessment due to the need to combine the different units of performance. The instrument used the five COSO variables in capturing internal control. Other measure of internal control such as internal audit was excluded. Performance measures adopted Fitzgerald and Moon's (1996) measures of performance. Control variables were not included because the effects of other variables were captured in the error term.

Definition of Terms

Internal control systems

Internal control systems are processes effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives with respect to effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations. It comprises control environment, risk assessment, control activities, information and communication and monitoring.

Firm performance

Firm performance denotes companies' respondents personal assessment of their company's efficiency and effectiveness in ensuring the

11

achievement of organisational goals. It covers financial and non-financial performance indicators of the building block model developed by Fiztgerald and Moon (1996) for measuring firm performance in the service industry. The financial indicators are return on asset and liquidity. The non-financial indicators also capture customer base, quality of service, flexibility, resource utilisation and innovation.

 Companies in the Ghanaian insurance industry

Companies in the Ghanaian insurance industry refer to all companies in the insurance sector. It encompasses life insurance, non-life insurance, reinsurance, oil and gas, brokerage, reinsurance brokerage, and lost adjuster companies.

Organisation of the Study

This thesis is organised into five chapters. Chapter one presents the general introduction. This chapter covers background to the study, statement of the problem, objectives of the study, research hypotheses, delimitation, significance of the study, definition of terms and the organisation of the study. The review of related literature forms the second chapter. The chapter two presents the introduction, evolution of internal control systems, theoretical review, conceptual issues, empirical review, lessons learnt and knowledge gap as well as the conceptual framework.

The methodology is also presented as the third chapter. The chapter specifically presents the introduction, the study area, population, sampling procedures, data collection, measurement instrument, pre-test and data analysis techniques. Chapter four presents the results and discussions. It

analyses the results and presents the major findings from the study. The summary, conclusions and recommendations is the last chapter.

Introduction

This chapter reviews literature on the theoretical basis of the study as well as the conceptual issues emanating from the theories. Some empirical studies on the subject are also reviewed. The literature review provides the context for the research, recognizing where the study fits into the existing body of knowledge (Boote & Beile, 2005). It shares with the reader the results of similar studies that are closely related to the one being undertaken. The literature review also relates the study to the on-going dialogue in the literature, filling in gaps and extending prior studies (Cooper, 2010; Marshall & Rossman, 2011).

Prior to the review of the theories underpinning the study, a brief evolution of internal control systems is discussed. A review of conceptual issues originating from the theories along with empirical studies is then considered. Issues and lessons learnt from the review are also discussed, upon which the conceptual framework for the study is constructed.

Evolution of Internal Control Systems

The repercussions of the stock market crash, in 1929, led to the enactment of the Security Acts, 1933 and the Securities Exchange Acts, 1934 with the former relating to internal control systems and audit procedures in the United States of America (USA) (Wegman, 2008). Furthermore, the National Commission on fraudulent Financial Reporting known as the Treadway Commission was sponsored in the 1980's by the American Institute of Certified Public Accountants (AICPA), the American Accounting Association

14

(AAA), the Institute of Internal Auditors (IIA), the Institute of Management Accountants (IMA) and the Financial Executives Institute (FEI) to develop a framework for evaluating the effectiveness of internal control systems (Moeller, 2011).

In order to develop the framework, Norfolk (2011) submits that a committee known as the Committee of Sponsoring Organisation (COSO) was then formed by the Treadway Commission to research on internal control systems. This Committee in 1992 issued the Integrated Framework for internal control systems. Equally, the Cadbury report which served as the UK's first corporate governance code was also issued in 1992 (Jordan, 2012). This report which emphasized how companies ought to be directed and controlled was first published with particular attention on the financial aspects of corporate governance and has become the foundation of corporate governance systems worldwide (Kaplan, 2012).

In 1995, another committee known as the Greenbury Committee was formed to investigate shareholder concerns over directors' remuneration. This committee, according to Norfolk (2011), came up with a report which contributed to the existing code regarding directors' remuneration. The report centred on providing a means of establishing a balance between salary and performance in order to restore shareholders' confidence (Doucouliagos, Haman, & Stanley, 2012; Kaplan, 2013). In 1998, the combined code which represented the consolidation of the Cadbury, Greenbury (1995) and the Hampel reports was issued.

Additionally, the Turnbull report was also issued in 1999. This report provided guidance to companies on how to implement the requirements

relating to internal controls. As indicated by Kaplan (2013), the report improved upon the guidance on internal control systems by asserting that the board of directors should adopt a risk-based approach to establish sound systems of internal control and report on its effectiveness on a regular basis. Subsequently, the Sarbanes-Oxley Act (SOX) was passed in the United State of America (USA). The SOX was in response to the global corporate and accounting scandals which affected Enron Corporation, Tyco, WorldCom and others (Coalson, 2014).

Following the Sarbanes-Oxley Act was the Smith's report in 2003, which suggested roles and duties for audit committees and the relationship that ought to exist between the auditors and the company. Similarly, the revised combined code (2003) which reflects both the SOX and the Higgs' Report – UK (2003) was also issued to govern how organisations should be directed and controlled. As pointed out by Norfolk (2011), the Higgs' review focused on the role and effectiveness of non-executive directors in implementing of good corporate governance.

A brief evolution of internal control systems and the reasons why it came into being have been discussed. The next section focuses on postulations or theories which back the effect of internal control systems on performance of companies in the Ghanaian insurance industry.

Theoretical Framework

The theoretical foundation of this study opens with the agency theory. It continues with the contingency theory of organisations. These theories are pertinent in explaining firm performance. The agency theory focuses on principal-agent relationship and how to resolve the problems emanating from

16

such relationship. The contingency theory relates to how an organisation could be organised in order to enhance firm performance.

Agency Theory (AT)

The agency theory addresses the best way to organize relationships wherein one party, the shareholder or the principal defines the work whereas another party, the manager or the agent performs the work (Connelly, Hoskisson, Tihanyi, & Certo, 2010; Eisenhardt, 1989; Jensen & Meckling, 1976). In this relationship, the principal employs an agent to perform a task, or to do the work that the principal is unwilling or unable to do. For instance, in companies the principals are the shareholders of the company, entrusting the agent - board of directors to carry out tasks on their behalf. This implies that the assumptions of the agency theory are based on preferences and motives behind human behaviour (Sarens & Abdolmohammadi, 2011).

According to Pratt and Zeckhauser (1985), the separation of ownership from management could result in likely goal conflicts between agent and principal. The theory further posits that the agents are autonomous and are prone to increasing their personal gains at the detriment of principals (Sharma, 1997). This connotes that different people would have different motives and would make every effort to achieve those motives (Koch, Ostner, Peisker & Schülke, 2009). Similarly, the agency theory postulates that both the agent and the principal are influenced by self-interest and thus, may not act in accordance with each other's interest (Jensen & Meckling, 1976).

The agency theory, according to Arnold and De Lange (2004) and Miller (2005), also assumes that problem of information asymmetry may exist between the agent and the principal due to the separation of ownership from

control. Information asymmetry arises when one faction to a transaction has superior information compared to the other (Lang, 2006). Generally, the agents are better informed about the day to day management of the firm than the principals (Eilifsen, Messier, Glover & Prawitt, 2006). Therefore, the theory argues that as a result of information asymmetry and self- interest of agents, principals lack reasons to trust that agents will act in their best interest (Bonazzi, & Islam, 2007; Lan, & Heracleous, 2010). Where such an alignment between the agents actions and the principals interest fails to meet, agency loss occurs which in turn run down organisational performance.

In contribution, Asare (2006) explains that to reduce the potential agency loss, the principal tasks those charged with governance to design and implement internal controls purposely to achieve organisational objectives. In a similar link, Zimmerman (2011) asserts that to reduce the agency cost, management interest ought to be aligned with those of the organisation through the implementation of management controls such as monitoring systems and internal controls. In furtherance, El-Mahdy and Park (2013) maintain that strong internal mechanisms align the interests of agents with principals and minimize the scope for information asymmetries and opportunistic behaviour, hence stimulating frim performance. This suggests that effective internal control positively affects performance when it induces managers to undertake activities that enhance the interest of shareholders.

Although Arwinge (2013) agrees with the role of internal controls in reducing agency cost and improving performance, Arwinge stresses that the mere design or installation of internal control systems does not minimize agency cost. Arwinge argues that the important aspect is the commitment to

18

implementation by those responsible. Equally, COSO (2013) and Gyasi (2013) claim that it is the effective design and implementation of internal control systems that enhances overall performance. Thus, only effective internal control systems help organizations achieve their operational, financial reporting and compliance objectives.

By the same token, the theoretical reviews of the agency theory and its assumptions have been tested empirically. For instance, Cao Thi Thanh and Cheung (2010) relied on the agency theory to test the quality of internal control reporting and the quality of accounting. They observed that quality internal controls minimize information asymmetry through quality reporting. Quality internal controls enhance transparency in reporting and reduce agency cost. Since agency cost depletes returns, it contributes positively to performance when reduced. Similarly, Njeri (2014) used the agency theory as one of the theories in studying the effect of internal controls on the performance of manufacturing firms in Kenya.

Notwithstanding the theoretical arguments provided by the agency theory on the effect of internal control on firm performance, critics have questioned some of its assumptions. Bruce, Buck and Main (2005) have argued that the self-interest of agents is an extremism assumption. They stress that self-interest assumption makes goal congruence unrealistic in principal-agent relationship. Similarly, De T'Serclaes and Jollands (2007) have argued that self-interest varieties should not always be considered as negative as portrayed by the agency theory. They further claimed that the self-interest could also have positive consequence, stressing that self-interest is inescapable and that individuals may be motivated by more than just money, since they

19

exhibit needs for achievement, recognition and responsibility. These exhibitions may positively affect performance of companies.

Critics of the agency theory also argue that the theory pays no attention to the role of a firm regarding competitive realities, their varying surroundings and the need to relocate resources within a company so as to keep growing (Foss, 1999). Also, Lubatkin (2005) argues that the agency theory does not explain the difficulties of real-world companies. In simple terms, real world companies expand from shareholders' interest to stakeholders' concept and how the business and the concept affect each other.

The agency theory, its underlying assumptions, criticisms and how the theory impacts on business performance through the installation and implementation of internal control systems have been discussed. The next section opens with the contingency theory which transcends the agency theory to explain how organisations can structure their internal control systems to suit contingency circumstances so as to boost the effectiveness of control systems and performance.

Contingency Theory (CT)

The contingency theory, according to Drazin and Van de Ven (1985) and Scott (1992), suggest that the optimal way in which a company could be organised is contingent or dependent on the kind of environment in which the company operates. The followers of the contingency theory assert that the theory is based on two assumptions. First, it assumes that no strategy is considered "universally superior" (Bergeron, Raymond & Rivard, 2001; Venkatraman, 1989), and there is no one best way in which a company could be organized (Donaldson, 2001). Of the second assumption, the theory

20

postulates that the choice of approach, structure or control system depends on the contingency circumstances such as the environment, risk profile, strategy, size, the organisational structure and best activities at hand (Chenhall, 2003; Donaldson, 2006; Richard, 2003).

Concerning the second assumption, Macintosh (1994), Hoque and James (2000), Chenhall (2003) and Pfister (2009) explain that for an organisation to perform well and achieve its corporate goals, the structure as well as the context of the organisation must match or fit each other. To buttress this argument, Jokipii (2009) points out that several frameworks namely the COSO and Criteria of Control (CoCo) assume the need for dissimilar organisations to have different internal control systems based on their contingency characteristics. This view is analogous with the contingency theory which contends that each organisation has to choose the most appropriate control system by taking into account contingency characteristics (Fisher, 1995; Luft & Shields, 2003; Jokipii, 2009).

It is clear from the foregoing that two organisations should not necessarily have similar internal control systems unless the organisations are identical. Thus the need for and specifics of internal control systems may vary in organizational contexts. This argument presented in the internal control systems framework (COSO 1994, p. 18) is parallel to the contingency theory. Drazin and Van de Ven (1985) and Donaldson (2006) note that the 'match' also known as 'fit' is the drive that stimulates performance. It implies that successfully adapting control systems to suit organisation's contingency characteristics result in effective internal control systems and better organisational performance (Pock, 2007).

21

In furtherance, some elements of the contingency theory are related to the components of internal control systems. This denotes that first and foremost, there is a link between the structure of internal control systems and contingency characteristics which define the structure of internal control (Donaldson, 2006). For this reason, changes in contingency factors imply changes to the structure of internal control systems so as to enhance its effectiveness, hence organisational performance (Dropulić, 2013).

Specifically, the contingency theory puts forward that companies are not closed systems which could be structured without considering environmental characteristics and the manner in which they affect the company (Jokipii, 2006). Jopkpii explained that to improve and maintain performance, firms ought to continually assess the risk of interaction with the environment, monitoring processes and the commitment of the organisation to such contingencies. This suggests that internal control as part of organisational structure or design is not static. Additionally, Eriksson-Zetterquist, Müllern, and Styhre (2011) suggest that the theory helps to relax the idea that the only best way to organize a company is meeting shareholders' goal as suggested by the agency theory.

Equally, the implication of fit and misfit between the structure and the contingency variables on business performance enables managers to gain proper insight as to why continual changes ought to be made to organizational design when contingencies features keep changing (Gerdin & Greve, 2004). Donaldson (2006) further opines that when companies either intensify the extent of the internal control implementation or review of the controls, they

22

keep on minimizing the misfit to quasi-misfit and ultimately enhance performance.

Although the contingency theory is well pronounced in establishing links between internal control system and performance (Donaldson, 2001; Islam & Hu, 2012; Pock, 2007), critics of this theory have cited that an organization does not necessarily have to adapt to the external environment (Hodges & Gill, 2014). They argued that it is not always prudent for companies to attain a fit with their contingencies because, as the company changes its structure to match the existing contingencies, the contingencies also keep changing, and thus, the change in structure of the organization would not deliver the desired fit. As a result, the company may not achieve full fit, but a pseudo fit, a structure that fits the contingencies just partially and not fully. The next segment focuses on the conceptual issues.

Conceptual Issues and Study Variables

This section discusses the variables and conceptual issues that originate from the theories as they relate to the research. The delineation and element of each variable are also discussed in this section. The section comprises discussions on the five components of internal control systems, namely; the control environment, risk assessment, control activities, information and communication, and monitoring.

Internal Control Systems (ICS)

Internal control systems refer to the combined methods, plans and procedures which safeguard the assets of a firm enhance financial and operational performance as well as foster observance of policies that are

prescribed (Hopkin, 2012). In a different viewpoint, Ndungu (2013) defines internal control systems as set of organizational procedures and policies that ensure that all transactions are processed in the proper way in order to avoid theft, waste and misuse of an organisation's resources.

Similarly, several others such as Cunningham (2004), International Organization of Supreme Audit Institutions [INTOSAI] (2004), Kaplan (2008) and COSO (2013) are of the view that internal control systems are processes put in place by the management, board of directors and other personnel of an entity, to offer reasonable assurance as regard the realization of organizational objectives. These objectives comprise efficiency and effectiveness of operations, trustworthiness of management and financial reporting, observance of applicable regulations and laws, as well as the safeguard of an entity's reputation. As stated by Cunningham (2004), internal control systems come into being as internal processes purposely to help a corporation to achieve its set objectives.

According to the International Federation of Accountants [IFAC] (2006), COSO's Integrated Framework for Internal Control (1992) and the Turnbull's Guidance on Internal Control (1999) took a much broader approach to internal controls than Sarbanes-Oxley, in terms of scope, objectives and approach. They focused on a risk-based approach to internal controls by adopting controls covering the company's entire range of activities or operations, and not just those directly related to financial reporting (Moeller, 2013).

A critical evaluation of the above definitions and descriptions point out that the purposes of internal controls are to enhance better operational

24

efficiency and financial reporting of organisations (COSO, 1992). It is also evident from these definitions that internal controls affect all facet of an organisation and is therefore thought of as the responsibility of management, board of directors and other personnel in an organisation (Adams, Grose, Leeson & Hamilton, 2004).

Internal control systems, according to Udu (2006), can be classified into detective, preventive, directive and corrective or compensating controls. These functions purport to minimize material errors, omissions, wastes, malicious acts and frauds which in turn ruin firm performance (Singleton & Singleton, 2010). COSO (2013) further accentuated that for internal control systems to detect, prevent and correct material misstatement or perform its function of providing reasonable assurance that performance targets will be achieved, the systems must be embedded in the day to day activities of corporate organisations.

The COSO framework of internal control segregates the internal control systems into five dimensions namely: control environment, control activities, risk assessment, information and communication, and monitoring activities (Arwinge, 2013; COSO, 2013). This framework has been an illustrious framework of internal control and has been adopted by several organisations, including the World Bank and World Health Organisation. The components are depicted in Figure 1.
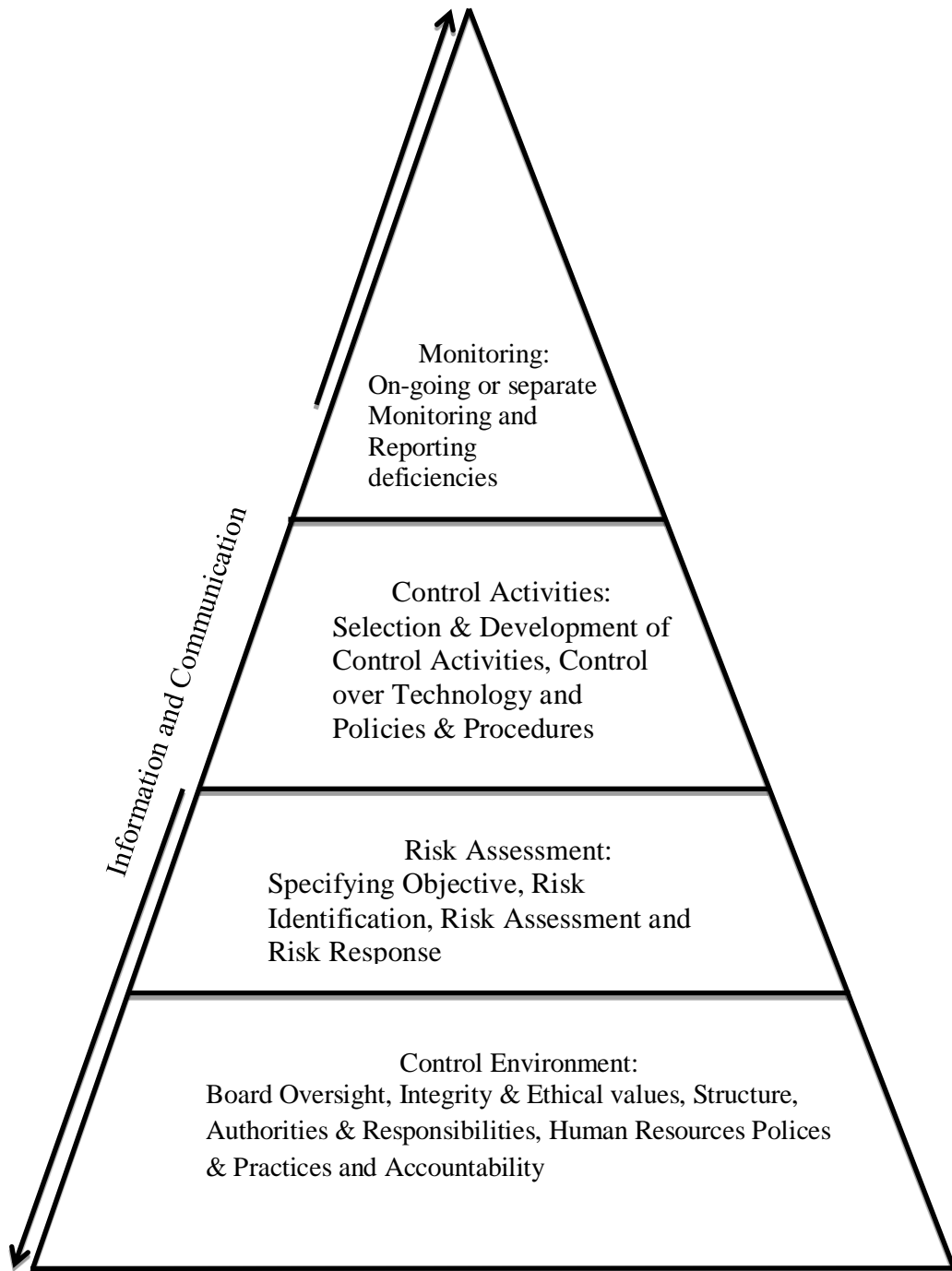
Figure 1: COSO Internal Control Integrated Framework
Source: COSO, 2013

Control Environment (CE)

Control environment has been defined in various ways by researchers. Ramos (2004) believes that control environment is the foundation of the internal control systems and it sets the tone at the top, influencing the control consciousness of all staffs of an organization. As indicated by Jokipii (2006), control environment is the style, philosophy, and supportive attitude, in addition to the ethical values, competence, morale and integrity of those involved with the organization. Similarly, Whittington and Pany (2006) refer to control environment as that aspect of internal control that offers the structure and discipline for the realization of the main objectives of internal control systems in addition to the climate which affects the entire quality of the systems of internal control.

From the above descriptions, control environment relates to the management and other key staff who make decisions in an organisation reflecting their philosophy and style. Equally, control environment from the foregoing is influenced by the culture of organization and has a way of impacting on the manner in which an organisation's activities are structured (Ndugu, 2013). Therefore, for an organisation to achieve its goals, management, board of directors and other key personnel ought to uphold good ethical values and integrity (Kaplan, 2013).

In view of the literature on control systems, control environment comprises key dimensions. However, the number of these dimensions is subject to debates. For instance, Gyasi (2013), operationalizes control environment and limits it to three dimensions namely, philosophy and operating style of the directors and management, the entity's organisational

27

structure and methods of assigning authority and responsibility as well as directors' methods of imposing control including internal audit function. On the other hand, COSO (2013) posits in the updated internal control framework that control environment dimensions include board oversight, integrity and ethical values, structure, authorities and responsibilities, human resources policies and practices, and accountability.

In November, 2013, World Health Organisation (WHO) also adopted COSO's internal control framework and introduced an additional dimension known as strategic direction. Nevertheless, CE dimensions provided by COSO internal control framework remain consistently applied in the literature. Board oversight refers to executive board structure that exists to demonstrate board independence from management and exercises oversight for the development and performance of internal control (COSO, 2013). This description of board oversight remains the authoritative definition for this dimension in assessing control environment (WHO, 2013).

Integrity and ethical values, according to Trainor (2007), involves board strategy of setting examples regarding ethical behaviour to serve as the standard of measure within the entire organisation. In this wise, Hayes, Dassen Schilder and Wallage (2005) assert that this dimension measures the standards of ethical behaviour which exists and processes which are in place to encourage staff to fulfil their duties with integrity. These descriptions given to the second dimension of control environment align with both the earlier version in 1992 and the updated version of 2013 COSO framework for internal control systems.

Similarly, structure, authorities and responsibilities as CE dimension converge around responsibilities, delegation of assignment and establishment of policies to support the objectives of organisations (Omane-Antwi, 2009). Furthermore, the human resources' policies and practices dimension, according to Kaplan (2013), measure the policies and procedures designed and implemented by an organisation to attract, develop and retain talents in support of the organisation's objectives including policies and practices for managing performance.

Accountability dimension under CE refers to the extent to which organisations put in place policies and procedures to hold members accountable for their internal control responsibilities (COSO, 2011). The essence of accountability is to minimise misuse of resources and control sense of entitlement among members of the organisation (COSO, 2013). Consequently, Gyasi (2013) points out that when the control environment is strong, the organisation achieves favourable performance and commitment to growth is enhanced.

Risk Assessment (RA)

Sudsomboon and Ussahawanitchakit (2009) define risk assessment as the identification and analysis of management relevant risk to the preparation of financial statements. In a different perspective, Theofanis, Drogalas and Giovanis (2011) claim that risk assessment is the process of discovery and evaluating risks to the realization of an organization's objectives. Risk assessment process forms part of the internal control components. As noted by Kaplan (2013), risk assessment has to be systematic and embedded in the procedures and operations of an entity.

According to Woolf (2013), in order for corporate organisations to identify and evaluate controllable and non-controllable risks that affect operations on a timely manner, risk assessment must be conducted on an on-going basis. Controllable risks are those risks which procedures of internal mechanism can reduce or eliminate while uncontrollable risks are risks that result from the environment in which the organization operates and cannot be reduced (Davies & Aston, 2010). Like the control environment, the risk assessment process also has some dimensions (COSO, 2013; Kaplan, 2008; WHO, 2013).

Although internal control experts believe the existence of different dimensions to risk assessment process, there is no common agreed measure of these dimensions. For instance, researchers such as Kaplan (2008) and Gyasi (2013) articulate the dimensions as entity-wide objectives, activity-level objectives, risks and managing change. On the other hand, experts including COSO (1992, 2011, 2013) and WHO (2013) also classify risk assessment process into four dimensions, namely specifying objectives, risk identification and prioritization, change management and risk response. This framework remains the consistently applied internal control principles (Ndungu, 2013).

Specifying objectives involves stating organisational objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives (COSO, 2013; WHO, 2013). Also, COSO and WHO explained that the risk identification and prioritisation dimension involves, identifying and analysing risks across the organisation for the purpose of determining how to respond to those risks. Regarding change management, it relates to how management promotes continuous improvement and solicits inputs and

30

feedback on the implication of significant change (Moeller, 2013). Finally, according to COSO and WHO, once the potential significance of the risk has been assessed, management considers how the risk should be managed and this is the risk response dimension.

According to Kaplan (2008), an effective design and implementation of risk assessment process would enhance corporate performance. Sayior (2010) adds that the consequence of an effective risk assessment process on performance is obvious because risk assessment forms the basis for determining where internal control activities are needed. According to Saiyor, risk assessment enables an organization to focus on those risks that will impact on the overall success of the firm. This connotes that an effective risk assessment process in the insurance industry will aid industrial players in their risk identification and assessment so as to respond to risks to the achievement of performance target through the design and implementation of a risk management programme. This will minimize uncertainty and ultimately improve industrial performance.

Control Activities (CA)

The Committee of European Insurance and Occupational Pensions Supervisors [CEIOPS] (2003) defines control activities as measures that help ensure that necessary actions are taken to address risks to the achievement of an entity's objectives. According to CEIOPS, control activities include policies governing underwriting policy, fulfilment of the solvency requirement as well as information systems. Similarly, Kaplan (2008) notes that control activities consist of procedures, policies, and systems which ensure that management directives and controls over financial reporting are carried out.

31

WHO (2013) also contends that control activities are the actions that are established through policies and procedures to help ensure that management's directives to manage risks and achieve objectives are carried out, including the use of technology to conduct business activities.

Critical scrutiny of the above explanations, stipulates that control activities are made up of policies and procedures. Control activities dimensions, according to Arwing (2013), could be preventive, detective, or a combination of both. In a different perspective, COSO (2013) describes control activities dimensions as the selection and development of control activities, general control activities over technology and policies and procedures.

Selection and development of control activities refer to the selection and design of control activities to manage business risk, taking into consideration the operational environment (COSO, 2013). General control activities over technology reflect developing controls to ensure integrity of information systems as well as control access to information systems. Of the three, policies and procedures relate to written policies and procedures that establish what an organisation requires from its staff (Moeller, 2013; Shim, 2011). These policies and procedures, according to COSO as cited by Njeri (2014), are built into the business processes which support quality and empowerment initiatives, avoid unnecessary costs and enable quick response to changing conditions. This infers that where an organisation builds into its business process strong control activities, performance levels are enhanced.

Information and Communication (IC)

The information and communication constituent of internal control is made up of information system and communication (INTOSAI, 2004). Communication systems denote methods and channels that organizations adopt to convey essential information, directives and policies (INTOSAI, 2004; Shim 2011). Of importance is the fact that, for communication systems to be effective, information must flow up, down and across the organization by means of identifying, capturing and passing on pertinent information in a timely manner to responsible parties to take appropriate action. Similarly, in a former contribution, Noel (2010) maintains that surrounding the activities of control environment are systems of information and communication that allow the people of the organization to pick up and interchange the information required to control, manage and conduct its operations.

CEIOPS (2003) notes that for an organisation to ensure a successful insurance undertaking, information must be accurate, relevant and reliable in order to ensure that accounting systems properly identify, assemble, analyse, classify, record and report the entity's transactions. The response from this communication enables the board of directors and management to assess how well the internal control is functioning (Shim, 2011). Consequently, information and communication are necessary for achieving the organization's objectives since they support the functioning of the other components of ICS. However, weaknesses in the information and communication may render the other components ineffective and may cause wastes of resources and clients' dissatisfaction (COSO, 2011).

Monitoring of Controls (MC)

The last component of the internal control system is monitoring. A crucial aspect of any complete system of internal controls is regularly monitoring how effective the internal controls are, in order to find out whether or not they are properly designed and also functioning (Treba, 2003). Monitoring, according to DiNapoli (2007), is the review of an organization's activities and transactions to assess the quality of performance over time and to determine whether controls are effective. Saiyor (2010) also argues that monitoring involves the process that evaluates the quality of internal control system's performance with time. Constructs employed in measuring monitoring, as pointed out by Shim (2011), include on-going monitoring and separate evaluations by internal auditors.

In a different perspective, COSO (2011) measures the dimensions of monitoring as on-going and separate evaluations, reporting of deficiencies and implementing corrective measures. On-going monitoring and separate evaluations, according to Arwinge (2013) and Johnstone, Gramling and Rittenbergs (2013), are normally incorporated into the usual, recurring activities of an organization and it includes routine checks and evaluations by management to ascertain the effectiveness of control procedures. Reporting deficiencies and implementing corrective action reflect communicating irregularities to those responsible for taking corrective action to act upon those findings at appropriate levels (Moeller, 2013).

From the above discussion, it could be said that the essence of monitoring systems of internal control is to ensure that the systems are properly designed and are operating effectively (Whittington & Pany, 2006).

34

This means that organisations regularly need to evaluate the design and operation of the controls to ascertain whether the internal control components are effective to mitigate relevant risk to an acceptable level. In essence, Di Napoli (2007) submits that in order to ensure effective monitoring of internal control and achieve performance targets, personnel are expected to know and understand the objectives, mission, and the level of risk tolerance of the organization, as well as their individual responsibilities.

In the literature, different researchers have used different methods in measuring the effect of internal control systems on organisational performance. While some researchers adopt Likert scales to estimate the influence of internal control systems on performance (2011; Mugo, 2013; Muraleetharan, 2011; Siayor, 2010), others have used dichotomous scales. Even though a number of authors have often used Likert scale, the points on the scale and number of items on the instrument differ considerably. For instance, while some use 5-point scale, others also use 4-point and 3-point scales (Muraleetharan, 2011; Siayor, 2010). The summary of the various components and their respective elements is presented in Table 1.

Table 1-*Internal Control System and Factor Structure*

Components of Internal	Control systems
Control Environment	-Integrity and ethical values,
	-Commitment to competence
	-Oversight by those charged with governance
	-Management's philosophy and operating style
	-Organizational structure
	-Assignment of authority and responsibility
	-Human resource practices and policies
Risk Assessment Process	-Specify objectives
	-Identify risks associated with objectives
	-Analyse risks and
	-Determine risk management program
	-Identify, assess and manage change
Control Activities	-Policies
	-Procedures
Information	-Generates relevant information
&Communication	-Internal communication
	-External communication
Monitoring of Controls	-Ongoing monitoring
	-Separate evaluation/periodic monitoring
	-Reporting deficiencies

Source: Author's construct from literature

The systems of internal control and its components namely control environment, risk assessment, control activities, information and communication system as well as monitoring of controls have been discussed. Different methods of measuring systems of internal control have also been deliberated on. The next segment concentrates on performance measurement.

Performance Measurement

Neely, Gregory and Platts (2005) define performance measurement as metrics used to quantify and compute an action's efficiency and effectiveness. In a different viewpoint, performance measures, according to Cheng (2008), are systems by which organizations monitor their operations and evaluate whether the organization is attaining its goals. Performance measure, as indicated by Bhimani, Hongren, Datar and Foster (2008), is central to every management control system. Effective performance measurement is essential in ensuring that an organization's business strategy is successfully implemented. The purpose of performance assessment is not only to know how well a business is performing but also to ensure that the business performs better so as to help it to serve its customers, employees, owners and stakeholders (Okwo & Mariri, 2012).

Proper performance measures, according to Dixon, Nanni and Vollmann (1990), are the measures which enable organizations to focus their actions on realizing the strategic objectives of the organization. Specifically, Tangen (2003) posits that performance measures are metrics employed to quantify the effectiveness and efficiency of organisational action. Bourne, Neely, Mills and Platts (2003) also believe that these explanations are precise but fail to convey the notion labelled in present-day literature and in practice

37

as performance measurement. According to Bourne et tal., performance measurement refers to the use of a multi-dimensional set of performance measures.

Multi-dimensional measures of performance are measures that combine both financial and non-financial key performance indicators (KPI) (Fitzgerald and Moon, 1996). Multi-dimensional performance measures have thus gained popularity both in research and practice as they capitalize on the strengths of single-dimensional measures while minimizing their weaknesses. The proponents of multi-dimensional performance measures argue that both internal and external measures of performance are used to quantify current and future performance (Cheng, 2008; Kotey & Meredith, 1997). To combine the multi-dimensional measures of performance, researchers including Zuriekat, Salameh and Alrawashdeh (2011) have used the Likert scale type self-assessment questionnaires in collecting data. An example of multi-dimensional performance measures is the building block model.

Financial or quantitative performance measures consist of performance indicators such as, operating profit, net profit, dividend yield, return on asset, cash flows, return on capital employed, residual income and value added income (Horngren, Datar & Foster, 2006). Financial performance as expounded by Khan and Jain (2013) and Garrison, Noreen and Brewer (2011) could be relative measures or absolute measures. According to Horngren, Datar and Rajan (2013), relative financial performance measures are those measures that relate profit or return with the resources used in generating such profit. This approach to performance measurement is helpful in that it enables inter and intra firm comparisons.

38

Absolute financial performance measures, on the other hand, are performance indicators based on absolute quantum of return or equivalent return (Garrison, Noreen & Brewer, 2011). Equivalent return implies diverse forms of return namely profit after tax, profit before interest and tax, economic value added and residual income. Arguments raised against absolute performance measure by supporters of relative measures include its failure to relate return to the resources used to generate the return (Horngren et al., 2013).

Despite the imperative role that financial performance plays in performance measurement, critics have argued that firstly, they are historic in nature, are subject to manipulation and lack predictive value (Emmanuel & Otley, 1995; Kaplan & Norton, 1996; Smith, 2005; Venanzi, 2011). Secondly, in order to achieve the target, financial result, managers may be tempted to make decisions that will improve short-term financial performance but have a negative impact on long-term performance (Dallas, 2011; Kaplan, 2014). Thirdly, the use of these short-term financial performance indicators has limited benefits to the company as it does not convey the full picture regarding the factors that drive long-term performance of business organisations (Drury, 2012).

Non-financial or qualitative measures, on the other hand, as cited in Agyei-Mensah (2009), are performance indicators based on non-financial information which originates in and is used by cost and profit centres to monitor and control their activities without any accounting input. Examples of non-financial performance measures introduced by the building block model include quality of service, flexibility, resource utilization, innovation and

competitive performance (Kaplan, 2014). These measures provide managers with timely information centred on the causes and drivers of success and can be used to design integrated evaluation systems (Banker, Potter & Srinivasan, 2000; Kaplan & Norton, 1996; Woolf, 2014).

Qualitative measures portray the bigger picture regarding factors that drive long term profitability (Fitzgerald & Moon, 1996; Hongren et tal., 2006). Measured generally via scales, qualitative performance indicators are largely anchored to objectively define performance criteria (Glancey, 1998). Moreover, empirical evidence exists in the accounting literature, supporting the reliability and validity of qualitative measures (Abdel-Maksoud & Abdel-Kader, 2007; Kaplan & Norton, 1996). Critics however maintain that qualitative performance measures are sometimes too comprehensive (Kaplan, 2014).

Fitzgerald and Moon (1996), in a study of the performance measurement in service industries, developed a framework known as the building block model for the design of a multi-dimensional performance indicator for measuring business performance in the service industries. According to them, the building block comprises dimensions, standards and rewards. Dimensions as expounded by Fitzgerald and Moon are the corporate goals for which performance indicators must be developed to measure. Competitiveness, financial performance, service quality, flexibility, resource utilisation and innovation are the dimensions of the model. Standards, on the other hand, are the indicators used to measure the goals (Woolf, 2014). They include market share, customer base, profitability, liquidity, responsiveness, delivery speed, efficiency, innovation and performance of innovation.

40

Fitzgerald and Moon (1996) measured dimensions using the various forms of measuring corporate goals. The empirical data was collected through in-depth interviews combined with an examination of internal documents and the non-participatory observation of company practices, including in some instances company meetings. The interviews were carried out with a range of personnel both at corporate or partnership level and at business unit level, involving 50 individuals.

In borrowing a cut off point for the scale of measurement, the measurement scale used by Yeboah (2013) in his study of "do auto-artisans practice entrepreneurial orientation" was looked at. In Yeboah's (2013) study, Yeboah examined the extent to which Cape Coast auto-artisans demonstrated entrepreneurial orientation. Data were obtained through self-administered questionnaire to 114 auto-artisans. The scale of measurement was a five point Likert scale. The dimensions of entrepreneurial orientation were classified to be low and high if the scale was 1-2.9 and 3-5 respectively. To correct for possible errors, the cut-off point was based on the mean score of 3 minus 0.1. The results of the study revealed high entrepreneurial orientation by the auto-artisans.

Empirical Review

This section reviews the current state of the subject matter. It provides evidence on prior studies. The purpose of the section is to uncover the existing gaps in literature and how the present study contributes to resolving such gaps. Various critiques are drawn in this section. The section also lays the basis for comparison of the results of the present study to existing literature. The detailed review is presented below.

41

In Uganda, Mawanda (2008) examined the effect of systems of internal control on financial performance in a higher learning institution by considering internal controls from the perspective of control environment, control activities and internal audit. The measures of financial performance adopted were liquidity, financial reporting and accountability. Mawanda sought to determine the functionality of internal control system, the level of financial performance and the relationship between controls system and financial performance.

Both qualitative and quantitative research approach was employed by Mawanda (2008). The study was conducted with a combination of correlational-survey and case study designs. In order to combine the different units of financial performance, primary data were elicited through the use of self-assessment questionnaires. Interview guide was also used to capture data from key informants. Secondary data, on the other hand, were collected from available records and documents. Although, the author failed to specify the sample size of the study, Mawanda indicated that the sample size was 75 percent of heads of departments and key accounting and finance related staff out of a population of 270 full time staff. The data were then analysed using regression analysis with the help of Statistical Product and Service Solutions (SPSS). Other narrative analysis was presented for the qualitative data.

The study discovered that the institution's management is dedicated to the systems of internal control by actively taking part in the supervision and monitoring of the University's activities. Most importantly, Mawanda (2008) found a significant relationship between financial performance and the system of internal control. Mawanda also could not address the entire variables of the

COSO framework for internal controls, even though all internal control variables showed a significant effect on performance. Mawanda therefore recommended that the institution establishes and manages information management system to enable all parties to freely access and utilize the official information.

In Uganda, a different study was conducted by Noel (2010) about the relationship between liquidity levels and control environment in indigenous commercial banks. The specific objectives of the study were to examine the relationship between control environment and liquidity levels, analyse the correlation between monitoring, control environment and accountability as well as ascertain whether monitoring, control environment and accountability factors impact on levels of liquidity in indigenous Ugandan commercial banks.

Noel (2010) employed competence levels, corporate culture, audit committee quality and management integrity and ethics as the constructs of control environment, and they were measured on a 5-point Likert scale, where 1 indicates strongly disagree and 5 strongly agree. Correspondingly, disclosures and transparency were adopted as constructs of accountability whereas internal checks, reconciliations and audits were employed as the constructs of monitoring. Both accountability and monitoring were measured using a 5-point Likert scale. The measurements of the level of liquidity in the study included cash ratio and current ratio.

The cross sectional survey and mixed research approach along with stratified sampling technique were employed by Noel (2010). The stratified sampling technique was used to group the sampling units into top management, middle or senior staff and other staff from which a purposive

43

sampling was used to select a sample size of 284 from a population of 700 banking staff in four indigenous commercial banks in Uganda.

Data collection was done by administering questionnaires and then descriptive, principal component analysis, correlation and regression analysis were employed to determine the relationship between control environment and levels of liquidity. The results from the correlation analysis revealed that there was a significant positive relationship between control environment and liquidity levels (r = .293[**], P-value < 0.01). Regression analysis results also showed that control environment, accountability and monitoring significantly impacted on liquidity level.

Noel (2010) also found that the control environment, monitoring and accountability together significantly explained or predicted 19 per cent of the variance in levels of liquidity. Amongst them, monitoring was the most significant predictor. This meant that about 81 per cent of liquidity levels were explained by some other variables not included in the study. Noel recommended that to improve liquidity levels, indigenous Ugandan commercial banks must keep and strengthen their control environment, and their monitoring mechanism.

Although Noel (2010) used a relatively large sample size with the appropriate statistical analysis, the R-square was very weak. The weak R-square suggests that other variables needed to be included in explaining the effect of internal controls on liquidity. For example, COSO (2013) internal control framework suggests that well-designed internal control systems should comprise five components. However, only control environment and monitoring were employed in Noel's study.

44

A different study was also conducted by Siayor (2010) to find out how the internal control system and risk management affected the financial performance of DnB NOR ASA, a Norwegian financial services group. The objectives of the study were to determine the risks that threaten the operations of DnB NOR ASA, examine whether those risks affected the financial performance of DnB NOR ASA, ascertain the systems of internal control and risk management put in place by DnB NOR ASA and finally, find out how these control systems have impacted on the performance of DnB NOR ASA.

According to Siayor (2010), the study employed mixed research approach with case study as a specific design, even though case studies are qualitative research designs. The data used were primary and secondary. The primary data were gathered from key informants from NOR ASA DnB using questionnaires. Secondary data, on the other hand, were gathered from audited annual reports of DnB NOR ASA. Although the author did not provide the size of the study population, he used a sample size of 10. Purposive sampling technique was used to select two respondents each from the internal audit, finance, insurance, human resource and the administration departments. The analyses of the results were mainly descriptive analysis and narratives

The findings of the research indicated that the company had in existence effective internal controls and risk management systems. It was also discovered that the strong internal control and risk management systems improved DnB NOR ASA profitability and performance as a whole. Additionally, the study discovered that the risks that threaten the operations of DnB NOR ASA included market risk, credit risk and liquidity risk.

45

A critical evaluation of Siayor's study indicates that the author used a qualitative study approach despite the fact that he said a mixed research approach was adopted. Secondly, the primary data captured from key informants from DnB NOR ASA was done with the use of questionnaire, although interview guide should have been used. Thirdly, unlike Noel's (2010) study, the sample size for Siayor's study was limited to DnB NOR ASA and as such cannot be generalized to companies in the Norwegian financial industry. Finally, Siayor failed to examine the impact of internal control variables on profitability since no regression tool was used in the analysis.

In a similar study involving Jaffna district organisations of Sri Lanka, Muraleetharan (2011) investigated the impact of internal controls on financial performance. Muraleetharan adapted COSO's five elements of internal control namely, control environment, risk assessment, control activities, information and communication and monitoring. Constructs adopted in measuring financial performance included profitability, efficiency and liquidity performance indicators. In order to combine the financial performance indicators as well as test the hypothesis, data were collected through self-assessment questionnaire and personal interviews and 181 respondents were drawn from employees who were employed by 47 public and private institutions in Jaffna district.

Dimensions employed were tested for reliability and all yielded a Cronbach alpha (α) value of above 0.7. The data were then analysed with the help of Statistical Product and Service Solutions (SPSS). Chi square and regression statistical tools of analyses were used. The study found that internal control is statistically significant in predicting performance. Of importance is

the fact that the study found that internal controls predicts financial performance, even though they are not statistically significant with control environment and information and communication. Muraleetharan (2010) further recommends that attention should be focused on adopting efficient management information system and training of staff.

A critical look at the study of Muraleetharan (2011) portrays that Muraleetheran considered all the components of COSO's internal control variables. This makes Muraleetheran's study very comprehensive as compared to those of Mawanda (2008) and Noel (2010). This implies that Muraleetharan's study responds to the weaknesses in the selection of internal control variables chosen by Mawanda and Noel.

Ndungu (2013), in a similar study, sought to investigate the effect of internal controls on revenue generation in University of Nairobi Enterprise and Services (UNES) using mixed research approach. The target population was the workers of the UNES for the 2013 calendar year. A simple random sampling technique was used to select a sample size of 45 employees from the target population with a 62 percent response rate. Descriptive research design was used for the study and primary data were collected by the use of structured questionnaires, whereas secondary data were collected from management reports and other published documents.

Control environment was measured using ethical values, level of integrity and competence of personnel tasked with creating, administering, and monitoring the controls, whereas risk assessment was measured in terms of level of risk to be accepted and maintained. Information and communication was measured in terms of how information is identified, captured and

communicated in the appropriate form and within stipulated time frame. Control activities were measured by considering the number of effective procedures, policies and mechanisms established to ensure proper directives of the management. Monitoring was measured by looking at how frequent the quality and effectiveness of internal controls are assessed and reviewed over time. The scale of measurement used was a 5-point Likert type scales with 1 indicating strongly disagree and 5 strongly agree.

The data analysis was done using descriptive and inferential statistics. Pie chart, bar chart and linear regression tools were adopted. Based on the findings, Ndugu concluded that internal control systems of UNES influence revenue generation (R^2 = 88.3%), even though risk assessment, control activities, information and communication and monitoring were statistically insignificant with financial performance. Furthermore, it was revealed that UNES had formal procedures and policies for each activity which enabled the attainment of healthy and efficient monitoring, communication and control of activities although risk assessment, control activities, information and communication were statistically insignificant with performance. The study recommends that UNES should cultivate integrity and ethical values among its employees and management.

Careful scrutiny of the above study point out that the sample size drawn from the population is small compared to other empirical studies on the subject matter. Similarly, the author failed to provide the population of the study and hence it is difficult to verify the reliability of the sample size. Furthermore, the Likert scale of measurement used by Ndugu is inappropriate because the scale fails to be on the same dimension.

48

Similarly, Oyoo (2014) examined the effect of systems of internal control on financial performance of micro-finance institutions in Kisumu Central Constituency, Kenya. Internal controls were considered from the perspective of control environment, control activities and information and communication whereas financial performance focused on liquidity. A 5 point Likert scales of measurement ranging from strongly agree to strongly disagree was utilised. Descriptive and correlational research designs were adopted. The target population comprised 18 registered micro-finance institutions. Convenient sampling was then used and a total of 7 institutions were chosen representing 35 respondents. Primary data was elicited through self-administered questionnaires while capturing secondary data from annual report and other documents.

The data were analysed using descriptive and inferential statistics. Instead of regression analysis, correlation tool was used for the inferential statistics. Oyoo (2014) discovered a positive relationship between internal control and financial performance of micro-finance institutions. It was recommended that micro-finance institutions should adopt more efficient management information systems and tighten their debt collection controls.

A critical look at the above study shows that the effect of control systems on financial performance was not addressed since a wrong analytical tool was used. Also, Oyoo (2014) should have used census because the sample size of 35 was inappropriate for such a rigorous analysis.

In Kenya, Chebungwen and Kwasira (2014) conducted a similar research to assess the effect of internal controls on financial performance of Kenyan tertiary training institutions: a study of African institute of research

49

and development studies. In order to achieve this objective, the study was guided by the agency theory to test empirically the effect of internal control on financial performance in tertiary institutions in Kenya. In addition, the study was to analyse the effectiveness of internal audit that African Institute of Research and Development uses in the internal control initiative. The target population was all the 68 workers of the tertiary institution. Due to the size of the target population, a census was employed. Structured questionnaires were used to collect the data.

The data obtained from the structured questionnaires was subjected to analysis by the aid of Statistical Product for Service Solutions (SPSS) using simple descriptive statistics such as percentages, means, median, mode and standard deviations. Furthermore, instead of a regression tool, the Pearson's Product Moment Correlation Coefficient (PPMC) was used to assess the nature and strength of relationship between the independent variables and dependent variable. Analysis and results of the study indicated that internal audit reports of the institutions tackled the weaknesses in internal control system, thus enhancing the financial performance of the institution. Also, the findings posit that there is a relationship between internal control system and financial performance.

The study recommended that tertiary training institutions in Kenya should not only establish an internal audit department but also ensure that the internal audit department is adequately staffed and independent. This would ensure that management interference with the auditors' work is minimized and possibly eradicated, thus minimizing the weaknesses in the internal control system in order to enhance performance.

A critical look at the study conducted by Chebungwen and Kwasira (2014) indicates an inconsistency between the objective and methodology, especially the analytical tool. Chebungwen and Kwasira intended to test empirically the effects of internal control on financial performance of tertiary institutions in Kenya but no objective was set to test such effect. Moreover, Chebungwen and Kwasira adopted correlation but no objective was set to test for the relationship between the internal control and the financial performance. According to Khan (2012), correlation rather estimates the associations between the variables. Therefore the appropriate tool of analysis that could have evaluated the effects of internal control system on financial performance was regression analysis.

In Nigeria, Ejoh and Ejom (2014) conducted a similar study to determine the impact of internal control activities on performance of Nigerian tertiary institutions. The study was conducted in Cross River State College of Education, Akamkpa. Instead of a research hypothesis that tests the impact of the independents variables on the dependent variable, Ejoh and Ejom rather developed the hypothesis to test the relationship between the internal control activities and financial performance.

Primary data collections were done with structured questionnaires, whereas secondary data were collected from articles and other published documents. The study design was a cross-sectional survey and stratified sampling technique was used in selecting the sampling units which included Heads of department, deans of school, internal audit staff, bursary staff, other academic staff and non-academic staff. A 4-point Likert scales ranging from strongly agree to strongly disagree was used. The data were then analysed

51

using simple percentages, tables and correlation coefficients leaving out regression analysis. The study found out that all the activities of the Cross River State College were introduced by the top management.

Regarding control activities, Ejoh and Ejom (2014) found that there is clear segregation of role in the finance department of the institution. The authors also discovered that the financial statements of the institution are audited yearly by external auditors. But, it was probable that a single staff could access all valued financial information without other staff being aware. Regarding budgetary control, the study revealed that the institution strictly follows the provisions of yearly departmental budget and that controls are in position to leave out incurring expenditure in excess of allotted funds. In addition, the study result found no significant relationship between activities of internal control and financial performance of the college.

A look at the study of Ejoh and Ejom (2014) reveals an inconsistency. The topic was to look at the impact of internal control activities on financial performance but the research hypothesis formulated only focused on relationship. Since the authors set a wrong hypothesis for the study, a wrong analytical tool-correlation analysis was also used. The authors should have formulated hypothesis that look at effect of the internal control activities on financial performance so that regression analysis could have been conducted.

In addition, the study was too descriptive and narrative and therefore very difficult to ascertain quantitatively the true consequence of internal controls. Key parameters such as the size of the target population and sample size were absent in Ejoh and Ejom's (2014) study. Although internal control

system affects all personalities in an organisation, the above study relied on only key informants.

In a study involving Elementry School in Bandung, Idonesias, Widyaningsih (2015) evaluated the influence of internal control on accountability. Internal control was measured using COSO's framework. In order to clarify the relationship among variables through hypothesis testing, the exploratory design was relied on. The target population was all primary schools in Bandung. A convenience sampling technique was used to select a sample size of 168 from the entire population. Primary data was collected through questionnaires.

The data collection instrument was developed using Likert scaling. The data obtained from the respondents was subjected to inferential analysis. Specifically the path regression analysis was used. Based on the results, it was concluded that internal control system significantly affected or predicted the variance in accountability. However, risk assessment and information and communication were not statistically significant in predicting the variance in accountability. It was also discovered that the implementation of internal control in primary schools in Bandung were high except on information and communication.

A cross examination of Widyaningsih's (2015) study indicates that the right tool of analysis was used in analysing the research topic. However, it is very difficult to verify the representativeness of the sample size since the population size was not disclosed by Widyaningsih.

Another study on the impact of internal control on performance was conducted by Oppong, Owiredu, Abedana and Asante (2016), using faith-

based NGOs in Ghana. Internal controls was measured based on the COSO framework while the performance captured efficiency, economy and effectiveness. The data for the study was obtained with the help of self-administered questionnaires. According to the authors, 118 out of the sample size of 150 participated in the study even though the population size was not disclosed.

The data collected were analysed using Statistical Package for Social Sciences (SPSS 20.0 Version). Pie charts and bar chats were used in presenting the results. The study found that internal controls significantly enhance the performance of faith-based NGO's in Ghana. In addition, the study discovered that internal control systems functioned satisfactorily in four components of the COSO model except risk assessment where procedures were found to be very weak.

The study recommended that management of faith-based NGO's should have holistic measures in place to constantly assess their effectiveness and impact on operations. Additionally, management should institute a rigorous risk management framework which will be able to detect all risk inherent in the internal control system in order to improve efficiency.

A critical assessment of the foregoing study indicates that the authors failed in disclosing the population size which makes verification of the sample size difficult. More importantly, the researchers also failed in analysing the impact of internal control systems on performance since no regression tool was used.

The theoretical review has laid the foundation for theoretical justifications for studying the effect of internal control system on performance

54

of companies in the insurance sector in Ghana. The empirical and conceptual reviews have also provided the bases for comparison and have further aided in the identification of areas of consensus and significant debates. The next step is a discussion on lessons learnt and knowledge gap.

Lessons Learnt and Knowledge Gap

The agency theory reviewed has revealed that internal control mechanism plays a major role in mitigating agency cost and thereby improves firm performance. The theoretical review has again pointed out that the need for internal controls varies according to a firms' characteristic which corresponds with the contingency theory's stipulation that each organisation has to choose the most suitable control system by taking into account contingency characteristics. The conceptual issue has also uncovered that when effective information and communication system are not put in place, it will render the other components of internal control systems ineffective and in turn deplete performance levels.

Most of the studies carried out in Norway, Uganda, Nigeria, Kenya, Sri Lanka and Ghana were on educational and banking industries. This raises issues regarding applicability of their findings to the Ghanaian insurance industry. Similarly, almost all the studies focused on the effect of internal control systems on financial performance, a single dimensional performance indicator.

In addition, the researcher learnt from the empirical studies that the most frequently employed research design was the survey design using structured questionnaires. In several literatures, the main survey preceded a pre-test to ensure easy understanding and reliability of instrument using

55

Cronbah alpha coefficient (α). Purposive, simple random and stratified sampling were used in selecting samples. The justification cited for purposive sampling was to select respondents with relevant information.

In all cases, a 3 point, 4 point or 5 point Likert scale was adopted as scale of measurement and the researcher learnt that a good scale must be on the same dimension. The review also brought to light a cut-off point of 2.9 for a scale of 1 to 5. Regarding construct for measuring internal control systems, several dimensions were adopted by various researchers. Some used a few while others used all five components of the COSO framework of internal control. In addition, a small number of researchers used other indicators such as internal audit. It was also noticed that the few comprehensive studies in respect of COSO internal control variables yielded mixed results. This could be attributable to difference in regional and study settings since those studies were conducted in different environments.

Performance measurement focused mainly on absolute and relative financial performance measures namely, profitability, current ratio, quick ratio and return on asset. This brought to light a gap in the literature of internal control systems on the use of multi-dimensional performance measures such as the building block model which in turn measures business performance in the service industry. Furthermore, the review pointed out that the multi-dimensional performance measures adopted for this study can be combined and measured using a five point Likert scale self-assessment questionnaires.

In most cases, data were analysed using descriptive and inferential statistical techniques. Concerning descriptive means and standard deviations were used. The inferential statistics, on the other hand, relied on correlation

and ordinary least square regression analysis. Result of some studies reviewed confirmed that internal control systems uniquely explain the variance in firm performance. Nonetheless, a number of researchers sought to investigate the effect or impact of internal control systems on performance and however, used only correlational tool of analyses which makes their findings inconclusive.

The review of literature on internal control systems has therefore pointed out the various lessons and knowledge gaps including the lack of a multi-dimensional performance measures as well as a study on the effect of internal control systems on performance of companies in the insurance industry in Ghana. These lessons and knowledge gaps will indisputably inform the path of this study with particular attention to internal control variables, performance indicators and reporting of results.

Conceptual Framework of the Effect of Internal Control Systems on Performance

The conceptual framework of this study was constructed from available literature based on the purpose and constructs adopted in this current study. The study bases internal control variables on COSO internal control framework namely, control environment (CE); risk assessment process (RA); control activities (CA); information and communication (IC) and monitoring of controls (MC). These constructs are interrelated and reflect the independent variables for this present study.

Performance, the dependent variable, is centred on a multi-dimensional performance indicator known as the building block model developed by Fiztgerald and Moon (1996). These performance indicators consist of return

on asset, liquidity, customer base, quality of service, flexibility, resource utilisation and innovation.

The study presents the relationship as shown in Figure 2
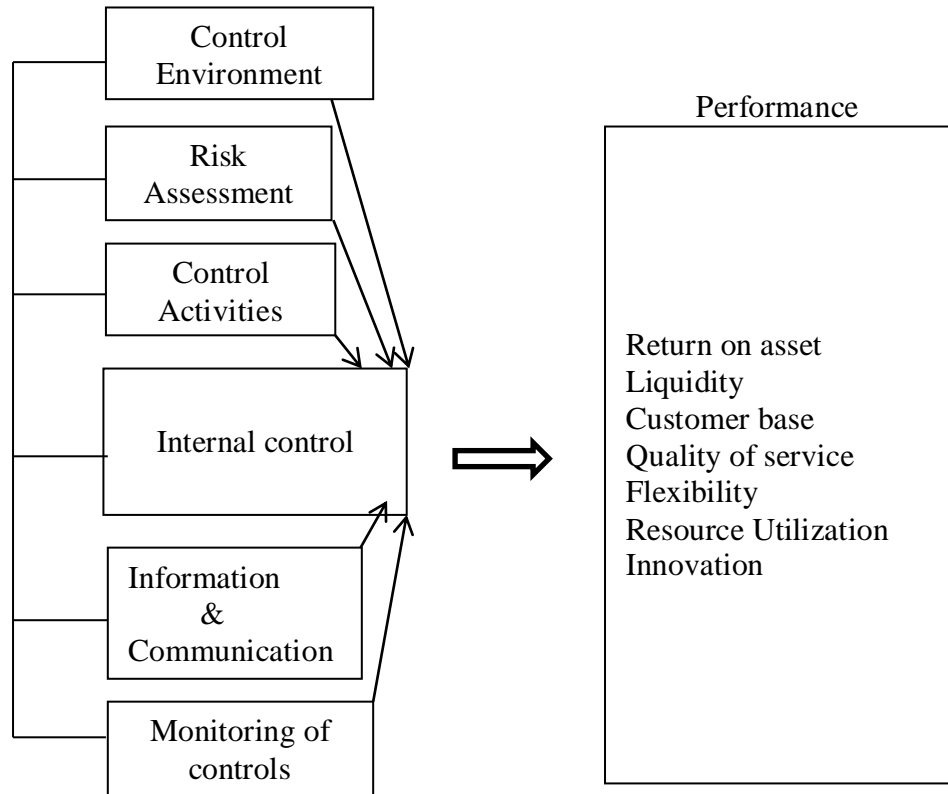
Figure 2: Internal Control Systems and Performance

Source: Various authors from the reviewed literature

The conceptual framework above depicts the positive linkage between internal controls and performance as well as the effect of internal controls on performance. This positive relationship is explained by the agency and contingency theories adopted for this study. From the figure, the boxes with thin arrows pointing to the box labelled internal control signify internal control variables. The box labelled performance also denotes firm performance with its dimensions. In order to combine the various units of performance, self-assessment questionnaires were used in collecting data. The thick arrow from

58

left to right reflects the positive influence of internal control systems on performance.

Chapter Summary

The literature review relating to the theoretical, conceptual issue and empirical studies on the effect of internal controls on performance have been reviewed. Knowledge gap and lessons learnt from the review led to the construction of the conceptual framework. The review of related literature also served as a guide towards the methodology and reporting of results. The next chapter presents the methodology of the study.

METHODOLOGY

Introduction

The purpose of this chapter is to provide the methodology necessary to investigate the variables under study. This section draws on existing literature in choosing appropriate methods, techniques and approach. It also enhances understanding of the research strategy, enabling comparison with other studies while enhancing possible replication of the study in future (Pallant, 2011). It further involves discussions and comparison of the merits, demerits, similarities and differences between the chosen methodology and others (Tabachnick & Fidell, 2013). The chapter presents discussions on the research approaches and study design, study area, target population, sample and sampling procedure and data collection instrument. Also, the pre-test, reliability testing, ethical consideration, data collection procedures, data processing and analysis as well as the chapter summary are discussed in this section.

Research Approaches and Study Design

The study or research approach focuses on the philosophies which underline the study. It is based on the nature of the study problem and the information gathering technique (Bryman & Bell, 2007). Basically, there are three types of research approaches namely, quantitative, qualitative and mixed approach (Khan, 2012).

Quantitative research, according to Saunders, Lewis and Thornhill (2012), is a study approach planned to ensure accuracy, reliability and generalisation of findings. It does that by developing testable hypothesis and

theories which lend themselves to generalization. This research approach is usually applied in the natural sciences and entails the collection of numerical data in order to exhibit a view of the relationship between theory and research as deductive, having in mind an objective conception of social reality (Dampson & Ofori, 2012). Some of the data collection techniques used under the quantitative approach are usually questionnaires, surveys, personality test and standardized research instrument (Burell & Morgan, 1979; Creswell, 2012).

The qualitative research approach, on the other hand, is concerned with subjective assessment of postures, opinions and conduct (Kothari, 2004). Bryman and Bell (2007) further note that qualitative approach is a process of initiating general account from a particular phenomenon and gives results either in non-quantitative or in a form which is not subjected to rigorous quantitative analysis. It is normally used when one wants to acquire a more profound or an in-depth understanding of a specific situation. Data collection techniques adopted under this approach include observation, case studies, interview guides and reviews where subjective elements of the researcher are built into the findings and conclusions (Dampson & Ofori, 2012).

Both quantitative and qualitative methodologies of research have merits and demerits. Nevertheless, the two approaches to research complement each other (Taylor, 2005). Quantitative approach presents ease and speed in conducting research and can cover a wide range of situations (Amaratunga, Baldry, Sarshar & Newton, 2002). It is also possible to use the quantitative method in analyzing data with statistical methods since it is easier to generalize the findings. Additionally, Maree (2007) argues that the results

from a quantitative approach are based on numerical values and logical conclusions other than interpretations which may enable future replication and comparisons with other studies. Critics of this approach argue that the approach is static and rigid in nature and ineffective in evaluating the meaning of people's action (Khan, 2012).

Despite the fact that the qualitative approach is time consuming and expensive, it controls both the end-points and the pace of the research process whilst preventing problems related to rigor and objectivity (Yates, 2004). Also, the approach is useful in explaining complex phenomenon, formulating theories and proposing hypotheses to test phenomenon. The main demerit of this approach is that a small group of interviewed individuals cannot be taken as representative. To overcome the challenge of choice, some researchers have recommended a combination of both approaches known as the mixed approach (Amaratunga et al., 2002; McNeil & Chapman, 2005).

The mixed method uses both quantitative and qualitative approaches in a given study (Morse & Niehaus, 2009). With this approach, a researcher either starts with quantitative or qualitative approach. It is applied where qualitative approach is used to set hypotheses and tested by quantitative approach later or in situations where quantitative approach is first applied in order to provide the ground for qualitative analysis (Bryman & Bell, 2007).

Based on the objectives of this study, the nature and relations between the variables being studied in addition to the need to conduct a survey and test hypothesis, the quantitative approach was therefore adopted. This would aid in drawing inferences and conclusions about the relationships between and among the variables under consideration. In addition, the quantitative

approach was chosen in that, the study seeks to determine and analyse the variation in the dependent variable that is explained or predicted by the independent variable.

Study design is the procedure under which the research is carried out (Neelankavil, 2007). The study design serves as a plan, framework or blueprint of outlines for collection, measurement and analyses of data when carrying out a meaningful research. There are many types of study designs. However, the choice of a specific design depends primarily on the nature of the study, research problem and the research approach (Creswell, 2012). Considering the nature of the study, type of the research problem and the lessons learnt, the cross-sectional survey design was adopted.

Cross-sectional survey design, according to Bryman and Bell (2007), is a design used when a study requires data and analysis from more than one case at one single time. As suggested by Saunders et al. (2012), this design allows examining of the association and variations between variables using quantitative data. In addition, the cross-sectional design enables different population groups to be compared at a single time point and relies on existing differences in selecting samples. Surveys are a deductive type of research design involving the collection and analysis of a wide range of quantitative data from a sizeable population using descriptive and inferential statistics (Tabachnick & Fidell, 2013). They are a popular and authoritative research strategy, affording researchers more control over the research process.

The need to capture data across the various categories of companies in the insurance sector necessitated the choice of the study design. Secondly, in order for the investigator to collect data and record measurement on a variety

63

of variables at the same time period as well as to make inferences about the effect of explanatory variables on an outcome variable, the cross-sectional survey design was adopted (Bryman & Bell, 2007). Finally, the need to compare and analyse responses from the standardised questionnaires, using descriptive and inferential statistics, deemed it appropriate for the choice of the study design (Saunders et al., 2012)

Study Area

The scope of the study is limited to companies in the insurance industry in Ghana. Ghana shares its eastern boundary with Togo, and its western boundary with Ivory Coast. The northern boundary of Ghana is shared with Burkina Faso, whereas the southern boundary is shared with the Gulf of Guinea. Ghana has ten (10) political and administrative regions with Accra as the capital town. Per the 2012 census, it was reported that the country has a total population of around 25 million, of which 51 percent were females, and 49 percent males (Ghana Embassy [GE], 2015). The country's dominant economic activity is agriculture (Ghana High Commission [GHC], 2003).

In Ghana, the insurance industry is governed by the Insurance Act 2006, ACT 724. Of importance is that the day to day regulation of the Ghanaian insurance industry lies in the hands of NIC executives who are responsible for formulating policies regarding risk management, internal control systems and corporate governance in order to ensure financial soundness, stability and profitability of the industry. The organogram of the industry is presented in Figure 3.
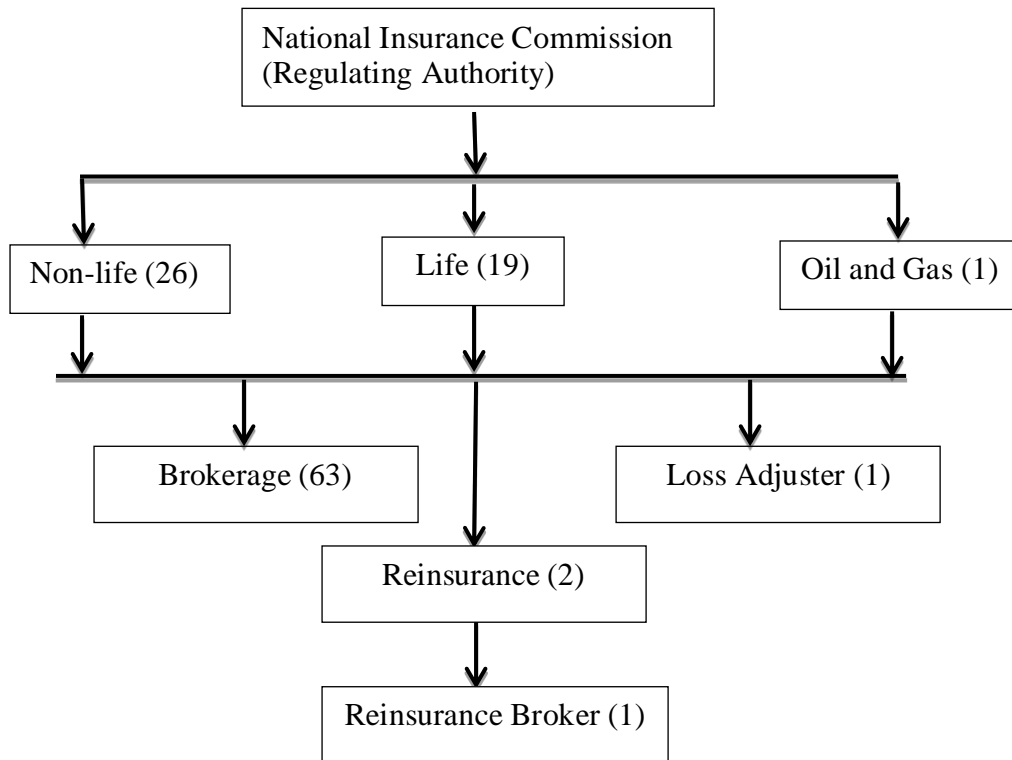
Figure 3: Organogram of the Ghanaian Insurance Industry

Source: InsureGhana, 2014

The reason for the choice of the industry is that most of the research works conducted focused on life and non-life insurance companies leaving out the brokerage, lost adjuster, reinsurance and the reinsurance brokerage firms. Similarly, there has not been any study on the effect of internal control systems on performance of companies in the insurance industry in Ghana.

Figure 4: Map of Ghana

Source: Wikipedia, Political map of Ghana.

Target Population

 A population of a study is the aggregation of all possible individuals, objects or measurement of interest (Cohen, Manion & Morison, 2007). In a different perspective, Babbie (2007) posits that a population is a group that the researcher is interested in for the purpose of generalisation. Bajpai (2009) also opines that the group should possess information relevant to the researcher. The target population of the study comprised all companies in the insurance industry for the year 2014. This was because as at 2014, there was no known

66

study on the effect of internal control systems on performance of companies in the Ghanaian insurance industry.

The insurance industry of Ghana, according to the National Insurance Commission of Ghana (2014), is made up of 113 firms. These firms are categorised into non-life insurance, life insurance, reinsurance, brokerage, reinsurance brokerage, lost adjuster and oil and gas companies. A list of the various categories of companies in the insurance industry and their line of businesses obtained from NIC are presented in Appendix A. The breakdown is presented in Table 2.

Table 2-*Population of Companies in the Insurance Industry in Ghana*

Category of company	Population
Non-life	26
Life	19
Reinsurance	2
Brokerage	63
Reinsurance brokerage	1
Loss adjuster	1
Oil and gas	1
Total	113

Source: National Insurance Commission, 2014

Sample and Sampling Procedure

The study population was made up of 113 firms in the insurance industry comprising, life insurance, non-life insurance, reinsurance brokerage, brokerage, oil and gas, loss adjuster and reinsurance companies. This necessitated the need to draw a sample from the population. Sampling was

resorted to because Zikmund, Babin, Carr and Griffin (2010) posit that it is generally not necessary to study all possible cases to understand the phenomenon under consideration. Copper and Schindler (2011) reiterate this by stating that the most important thing taken into consideration is that the sample size drawn from the population must be representative so as to allow the researcher to make inferences or generalisations from the sample statistics to the population understudied.

The Krejcie and Morgans's (1970) table for determining sample size was used. The table uses a formula that assumes 5 percent margin of error, 95 percent confidence level for business studies, a population proportion of 50 percent and a sampling frame from which the sample is drawn. Based on the table, a sample of 86 was selected from the population to represent a cross section of the population (see Appendix B). The researcher then adopted stratified and simple random sampling techniques in selecting the sample. This was to ensure that each category was given equal chance of being selected. The proportionate sampling was then used to select the number of respondents from each stratum out of the entire population.

The differences in the number of companies per category led to a wide variation in the sample sizes per category. For the purpose of capturing essential units as well as reducing the variations, the researcher espoused oversampling. Oversampling, according to Rahman and Davies (2010), is the use of bias to deal with disproportionate samples by capturing the whole population of essential units which are few in a given overall population. The sample size that was drawn from non-life and life insurance companies were

68

increased by six and five respectively. The adjusted sample size together with the initial one per category of companies is shown in Table 3.

Table 3 -*Initial and Adjusted Sample Sizes of Participating Companies in the Ghanaian Insurance Industry*

Category of Company	Population	Initial Sample	Adjusted Sample
Non- life	26	20	26
Life	19	14	19
Reinsurance	2	2	2
Brokerage	1	1	1
Reinsurance broker	1	1	1
Lost adjuster	1	1	1
Oil and gas	1	1	1
Total	113	86	97

Source: Field survey, Amissah (2015)

Next, the simple random sampling technique was used to select the individual respondents for the study. The respondents comprised of either, audit directors, audit managers or audit seniors of various companies in the insurance industry who were responsible for independent evaluations of internal control systems. Specifically, the lottery method in addition to purposive sampling was used to select each company in the stratum until the sample size was reached. The justification for purposive sampling was to select respondents with relevant information.

Data Collection Instrument

The researcher adopted questionnaire administration with close ended items to solicit primary data from respondents (See Appendix C). The questionnaire was chosen for the study because firstly, most of the literature on internal controls adopted the questionnaire method. Secondly, it is economical, reliable and widely used instrument for collecting research-relevant information (Cohen et al., 2007) from a large number of individuals who all respond to identical questions. Finally, questionnaires guarantee greater uniformity, consistency and objectivity in data collection (Neelankavil, 2007).

The close ended items provided a range of responses from which respondents were expected to choose. The section on internal controls was espoused from the instrument developed by Bureau of Financial Monitoring and Accountability of Florida Department of Economic Opportunity (DEO) (2014). The DEO 2014 instrument was based on variables in COSO, 2013. The segment on performance was also adopted from Fitzgerald and Moon's (1996) measures for measuring performance in the service industry.

The questionnaire was made up of sixty-four items grouped into four sections (A, B, and C). Sections A, B and C covered essentially closed ended items. Section A centred on the organisational characteristics of participating companies in the industry. The data captured included the legal form and categories of companies. Section B and C gathered information on internal control systems and performance respectively. These variables indicators and it from the COSO framework of internal control systems and Fiztgerald and

70

Moon's measures of performance were measured using the Likert scale of measurement.

The Likert-scale is a method of measuring people's attitude, opinion or beliefs by combining their scores on variety of items into a single index. such According to Likert (1932) as cited by Yates (2004), scaling is achieved by ensuring that high-scoring and low-scoring individuals differ in their responses on each of the items selected for inclusion in the index. Dampson and Ofori (2011) also posit that the Likert-scale is the most widely used method of scaling in the social sciences today. Perhaps this is attributed to the fact that it is easier to construct and tends to be more reliable than other scales with similar number of items.

Section B was sub-divided into five parts (I - V) to gather information on the internal control systems. Part I, the control environment, measured management commitment to integrity and ethical values, board of directors' independence from management and oversight responsibility as well as reporting lines, appropriate authorities and responsibilities established by management in pursuance of organisational objectives. Similarly, part I also captured information on the organisations' commitment to competence along with individuals' accountability for internal control responsibilities. These indicators were rated on a five point Likert scale of 1 to 5, with 1 indicating weak agreement, and 5 representing strong agreement.

Part II, under section B, covered risk assessment process. This was based on the COSO checklist of internal controls. Data were captured on risk assessment by considering the existence of specific goals and objectives with sufficient clarity to enable the identification and assessment of risks relating to

71

objectives. Also, risk assessment process captured the presence of procedures for identification, prioritization and management of risk. Information on whether the companies consider the potential for fraud in assessing risks was also elicited. Equally, this part considered the companies' commitment to change and change management. A five point Likert scale of 1 to 5, with 1 indicating weak agreement and 5, strong agreement was employed.

Part III, under section B, measured control activities. Constructs selected for measurement were based on written policies and procedures, control procedures and controls over information systems. Written policies and procedures sought to measure the presence of documented policies regarding business operations. Control procedures also measured the existence of control processes such as the reviews of actual performance against objectives and prior periods, monitoring of performance against budget, investigation of unusual results as well as review of policies and procedures to determine their continued relevance. In addition, control over information systems found out the presence of controls over computer systems. These constructs were scaled on a five point Likert scale of 1 to 5, with 1 indicating weak agreement, and 5 representing strong agreement.

Information and communication, the fourth part IV under section B was measured by looking at whether or not the companies generate and use relevant, quality information to support the functioning of other components of internal control on a timely basis. Secondly, part IV elicited data on information and communication by capturing how the companies in the insurance industry internally communicate information, including objectives and responsibilities for internal control, necessary to support the functioning

72

of other components of ICS. Lastly, part IV captured information on how the companies communicate with external parties regarding matters affecting the functioning of other components of internal control. The constructs were rated on a five point Likert scale of 1 to 5, with 1 indicating weak agreement, and 5 indicating strong agreement.

Monitoring, the last part under section B, captured data on ongoing or separate evaluations and reporting of deficiencies on a timely manner. Ongoing or separate evaluations focused on whether or not the companies select, develop and perform frequent evaluations to ascertain whether the components of internal control are present and functioning. Reporting of deficiencies also centred on how the companies evaluate and communicate internal control deficiencies in a timely manner to those parties responsible for taking corrective action including senior management and the board of directors. Respondents for the study were asked to rate the dimensions on a five-point Likert scale with 1 indicating weak agreement and 5 indicating strong agreement.

Section C measured performance using the companies' respondents personal assessment of performance indicators based on Fiztgerald and Moon's (1996) building block model for measuring performance in the service industry. The use of self-assessment measures or surveys in measuring performance in the accounting literature is well received as its usage has enabled other researchers such as Kihn (2005) and Mawanda (2008) in their measurement of business performance. This method also aided the researcher in combining the different units of performance measures. Moreover, researchers have demonstrated convergent reliability of such measures (Doyle,

73

Saunders & Wright, 1989; Mawanda, 2008; Noel, 2010; Venkatraman & Ramanujam, 1986).

The financial indicators were return on asset and liquidity. The non-financial indicators on the other hand captured customer base, quality of service, flexibility, resource utilisation and innovation. A five point Likert scale of 1 to 5, with 1 indicating weak agreement and 5 indicating strong agreement were employed to aid respondents in answering the items on the instrument.

Pre –Test

A pre-test was undertaken with the 16 companies that were not selected for the study in September, 2015. Pre-test, according to Pallant (2011), helps to ensure that respondents do not have problems answering the items on the questionnaire. Cooper and Schindler (2011) further posit that pre-test enables the researcher to obtain some assessment of the validity of questions and the likely reliability of data collected during the study.

The non-sampled 16 companies of the target population were chosen mainly because it met Saunders, Lewis and Thornhill's (2009) minimum criteria of 10 for pilot studies by students. In addition, it conforms to Cooper and Schindler's (2011) assertion that the respondents of a pilot test need not be statistically selected. A total of 59 item questionnaire was administered to respondents of the non-sampled companies in the industry of which all were retrieved. The researcher then examined the completed questionnaires and realised that the respondents understood all questions and thus had no problems answering the items on the questionnaire.

Reliability

Reliability is the capacity to generate the same findings every time a method is repeated or the extent to which a test or instrument produces similar measurements, given similar conditions (Dampson & Ofori, 2011). Two frequently used indicators of a scale's reliability are test-retest reliability and internal consistency (Pallant, 2011). Due to the resistance on the part of respondents to repeat participation, the study excluded the test-retest. Although internal consistency can be measured by a number of ways, the researcher adopted the most commonly used statistic, the Cronbach's alpha coefficient with a minimum of .7 (DeVellis 2012; Nunnally 1978; Tabachnick & Fidell, 2013). Table 4 presents the results (Cronbach's alpha values) obtained for the study.

Table 4 -*Reliability Coefficient Scores (Cronbach's alpha value) for Data*
  Collected during Pilot Study

Number	Constructs	No. of Items	Cronbach's Alpha Value
I	Control Environment	15	0.891
II	Risk Assessment	12	0.832
III	Control Activities	10	0.816
IV	Information & Communication	9	0.916
V	Monitoring	5	0.755
VI	Performance	7	0.853

Source: Field survey, Amissah (2015)

Ethical Consideration

Ethics as defined by Saunders et al. (2012) refer to rightness of the researcher's conduct in relation to the rights of those who become the subjects of the researcher's work. Ethics and access are some of the critical aspects of every educational research work. The researcher's ability to collect data is dependent on gaining access to appropriate and relevant resources and respondents. In order to have access as well as ensure compliance with ethical values of research, an introductory letter was obtained from the Department of Accounting and Finance, University of Cape Coast. (See Appendix D). This enabled the researcher to have access to data from the NIC as well as the companies in the insurance sector.

As etiquette demands, the researcher informed the respondents of the purpose of the study as well as their role in providing valuable information. The respondents were further given assurance of anonymity and confidentiality of the data and were also informed of the voluntary nature of the data collection process. This was achieved by capturing in the introductory paragraph of the questionnaire a phrase assuring respondents of anonymity and confidentiality. The above were the procedures taken to ensure adherence to ethical standards for this study.

Data Collection Procedures

The study used questionnaire administration in collecting primary data. Prior to data collection, a comprehensive list comprising the names, location, contacts and other relevant business information of the sampled companies was obtained from the NIC. A fruitful agreement was then reached with the research assistants regarding administration of the questionnaires. Following

76

the agreement, the questionnaires were administered by research assistants within a period of one week in the month of October, 2015 to cover all the sampled companies in the industry. A period of two weeks for collection of questionnaires was agreed upon by the research assistants and the respondents.

After allowing for a time lag of two weeks, the researcher contacted the respondents to find out whether the questionnaires have been completed. Responses from the respondents indicated that 60 out of the 97 had completed the questionnaire. Upon allowing for another two weeks, 31 out of the remaining thirty-seven of the questionnaires were completed by the respondents. Out of the 97 questionnaires administered, 91 (93.8%) were retrieved. Upon receipt of the questionnaires, the researcher conducted a thorough examination on the questionnaires. The examination revealed the level of knowledge of the respondents on the concept being studied. Table 5 present the statistics of the distributed and retrieved questionnaires.

Table 5-*Freqency Distribution of Disbursed and Retrieved Questionnaires*

Category	Distributed		Retrieved	
	Frequency	%	Frequency	%
Non-life	26	27.0	26	27.0
Life	19	19.6	17	17.5
Reinsurance	2	2.0	2	2.0
Brokerage	47	48.4	43	44.3
Reinsurance broker	1	1.0	1	1.0
Lost adjuster	1	1.0	1	1.0
Oil and gas	1	1.0	1	1.0
Total	97	100.0	91	93.8

Source: Field survey, Amissah (2015)

Data Processing and Analysis

The next step was how to test the research hypotheses. The survey questionnaire of the sampled companies provided data for testing all the hypotheses. The data were first cleaned to remove errors. Data collected were analysed quantitatively using both descriptive and inferential statistics. Both the descriptive and inferential statistics were achieved through the use of output from Statistical Product for Service Solutions (SPSS) version 21. The conventional alpha level of 0.5 was used for all test of significance.

Prior to analysing the data, the dimensions of internal control and performance were tested for normality using Kolmogorov-Smirnov statistics as recommended by Tabachnick and Fidell (2013) and Pallant (2011). The significant (Sig.) values of the Kolmogorov-Smirnov statistics as evident in Table 6 suggested a violation of the assumption of normality. The rule of

78

thumb according to Dampson and Ofori (2011) also suggests that a skewness value of less than -1 or greater than 1 indicate violation from normality. All the variables were skewed (See Appendix E).

Table 6-*Normality Distribution of Responses on Control Environment, Risk Assessment, Control Activities, Information and Communication, Monitoring and Performance.*

Variables	Kolmogorv Smirnov[2]		
	Statistics	Df	Sig
Control environment	.214	91	.000
Risk assessment	.183	91	.000
Control activities	.177	91	.000
Information and Communication	.168	91	.000
Monitoring and evaluation	.173	91	.000
Internal Control	.187	91	.000
Performance	.134	91	.000

Source: Field survey, Amissah (2015)

Given the results of Kolmogorov-Smirnov statistics, the median, skewness, means and the associated standard deviations were reported for objective one. However, the basis for comparison or assessment relied on the means and its associated standard deviation. The reason cited is that most of the empirical studies reviewed focused on the means and the standard deviations. The dimensions of ICS were classified to be weak and strong if the scale was 1-2.9 and 3-5 respectively. With performance the dimensions were classified to be low and high if the scale was 1-2.9 and 3-5 respectively. To correct for possible errors, the cut-off point was based on the mean score of 3 minus 0.1 as used by Yeboah (2013).

79

Considering the nature of objective two and the result from the Kolmogorov-Smirnov statistics, the non-parametric alternative of analysis of variance (ANOVA) known as Kruskal-Wallis was relied on in analysing objective two. The Post hoc tests controlled for Type 1 error by using the Bonferoni adjustment. The Bonferroni approach requires dividing the alpha level of 0.05 by the number of test to be conducted. For the purpose of determining which of the groups differ from each other in terms of their ICS, the alpha figure of 0.05 was divided by 3 resulting in a revised alpha value of 0.02. Furthermore, for better analysis and interpretation of the Kruskal-Wallis and the Mann Whitney U results, the companies in the Ghanaian insurance industry were sub divided into life, non-life, brokerage and others. Where, others meant oil and gas, lost adjuster and reinsurance.

In view of the nature of objective three, the ordinary least square regression was used. The ordinary least square regression makes certain assumptions which include multicollinearity, outliers, normality, linearity, homoscedasticity, independence of residuals and sample size. Multicollinearity could be checked by critically observing the correlation matrix. Hair, Black, Babin and Anderson (2009) show that the presence of high correlations, generally 0.9 and above indicates greater collinearity.

The correlation matrix performed for this study revealed that none of the correlation coefficient was up to 0.9 between any two variables (See Appendix F). This implies that the variables are independent of each other and can be included in the model. Hair et al (2009) again argue that just running a correlation matrix is not enough and so, tolerance value and its inverse, the

80

variance inflation factor (VIF) should be performed to test for multicollinearity.

Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula 1−R squared for each variable. If this value is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity (Pallant, 2011). The variance inflation factor is just the inverse of the tolerance value (1 divided by Tolerance). Variance inflation factor (VIF) values above 10 indicate multicollinearity. Following Hair et al. (2009), the multicollinearity test was performed using VIF. The mean VIF of 3.74 for this study shows that there was no problem of multicollinearity as it is within the rule of thumb (10 or below) (See Appendix F).

Apart from muliticollinearity, the assumptions of normality, outliers, linearity, and independence of residuals were also checked. These assumptions were checked by inspecting the residuals scatterplot and the Normal Probability Plot of the standardised residuals that were generated as part of the regression output (See Appendix G). A distribution of data is said to be normally distributed when the points lie in a reasonably straight diagonal line from bottom left to top right (Dampson & Ofori, 2011; Pallant, 2011).

In this study, the points in the Normal Probability Plot lied in a reasonably straight diagonal line from bottom left to top right. This suggests that there were no major deviations from normality. Identification of outliers is easily made with scatter plot (Pallant, 2011). Generally, outliers are considered as cases that have a standardised residual as shown in the scatter

plot of more than 3.3 or less than −3.3 (Tabachnick & Fidell, 2013). From the scatter plot (See Appendix H), there was no case above 3.3 or below -3.3 which also suggests that there was no problem of outliers.

The ordinary least square regression was used in analysing the effect of internal control system on performance of companies in the insurance sector. Analyses and interpretation were based on (β) values, partial correlation values (r) ,coefficient of determination (R^2) , and corresponding significant levels (p- values).

$$PER = \alpha + \beta_1 CE + \beta_2 RA + \beta_3 CA + \beta_4 IC + \beta_5 MC + \mu$$

Where:

PER = Performance

CE = Control environment

RA = Risk assessment

CA = Control activities

IC = Information and communication

MC = Monitoring

μ   = Error term

$\beta_1, \beta_2 \ldots \beta_5$ represent the regression coefficient

Chapter Summary

The methodology necessary to investigate the research problem has been discussed. This included the research approach, study design, sampling techniques, method of data collection and data analysis. The next chapter presents the results and the discussion of the study.

RESULTS AND DISCUSSION

Introduction

      This chapter discusses the findings of the study in relation to the objectives. The chapter begins with a discussion on the characteristics of companies that responded. It proceeds with an assessment of the conditions of internal control and performance of companies in the insurance industry. Analysis of the above is done using descriptive statistics. The section further focuses on the differences in the ICS among the categories of companies. Kruskal Wallis was relied on in assessing the differences in ICS. The chapter continues with a discussion of the relationship and effect of the internal control systems on performance of companies in the insurance industry in Ghana. The analysis of the effect of ICS on performance is done using ordinary least square regression technique.

Characteristics of Companies that Responded

      This part of the study describes the characteristics of companies in the Ghanaian insurance industry in order to give a general overview of the calibre of companies in the study. It considers the categories of companies in the industry and their legal form.

      Regarding the categories of companies in the insurance sector in Ghana, 91 (93.8%) out of the 97 respondents answered the questions. The results revealed that forty-three (47.2%) of the companies representing majority were brokerage firms. There were also twenty-six non-life insurance companies (28.6%), seventeen life insurance companies (18.7%), two

reinsurance companies (2.2%), one reinsurance brokerage (1.1%), one loss adjuster (1.1%) and one oil and gas insurance company (1.1%).

Table 7-*Breakdown of Companies*

Category of companies	Frequency	Percentage
Non – life	26	28.6
Life	17	18.7
Reinsurance	2	2.2
Brokerage	43	47.2
Reinsurance Broker	1	1.1
Lost Adjuster	1	1.1
Oil and Gas	1	1.1
Total	91	100.0

Source: Field survey, Amissah (2015)

The legal form of ownership of companies in the insurance industry was another characteristic the study sought to consider. The survey revealed that 95.6 percent of the companies in the industry were privately incorporated companies while the rest were publicly incorporated insurance companies. This suggests that majority (95.6%) of the companies in the industry are not listed on the Ghana stock market. The predominance of privately incorporated companies is sometimes attributable to the fear of separation of ownership from management which could result in likely goal conflicts between agents and principals (Pratt & Zeckhauser, 1985).

Condition of Internal Control Systems and Performance

In view of the conceptual framework in chapter two, the study sought to examine the effect of internal control systems on firm performance. It became necessary to investigate the condition of internal control systems. The assessment of the condition was to determine the state of affairs of the variables and make recommendations based on the findings. To enhance better assessment of the results, the categories of companies were further divided into four namely; life insurance, non-life insurance, brokerage and other insurance companies. The other insurance companies depicted oil and gas, reinsurance and loss adjuster insurance companies. The first section of the discussion centred on the condition of ICS while the second segment focused on the condition of performance.

Condition of Internal Control Systems

Internal control systems, according to COSO (2013), comprise five dimensions namely; control environment, risk assessment, control activities, information and communication and monitoring. Therefore, the first part of objective one sought to investigate the condition of internal control systems. This part discusses the condition of ICS exhibited by companies in the Ghanaian insurance industry for the year understudy. The two-part discussion begins with an assessment of the dimensional and composite conditions of internal control systems for the entire industry. The second section considers the condition of each dimension of internal control systems as well as the composite dimension for each of the four categories of companies. All the dimensions of internal controls used in this study had sub-dimensions. The analyses were done using medians, skewness, means and standard deviations.

The conditions of each indicator, dimension and sub-dimension of ICS were independently determined, using a mean scale of 1 to 5 with 1 to 2.9 indicating weak system of internal control and 3 to 5 indicating strong system of control. To correct for possible errors, the cut-off point was arrived at using the mean of the scale minus 0.1 as used by Yeboah (2013). The conditions were first determined for the entire industry, followed by the conditions per the four categories of companies in the industry. The next section begins with a discussion on control environment.

The first issue addressed under internal control was CE. CE had five sub-dimensions. The leading sub-dimension under CE addressed the companies' commitment to integrity and ethical values. Indicator one under the leading sub-dimension sought to measure the extent to which the companies translated expectations into statement of beliefs, values, and standards of conduct. The second indicator captured the extent to which the companies reinforced standards at all levels. The next indicator measured the magnitude with which the companies evaluated the performance of staff and outsourced service providers.

Per the median figure of 4, with skewness of -1.07 (mean = 3.65; standard deviation = 1.04), the companies were generally committed to integrity and ethical values. The implication of this result is that firms in the industry are likely to win the confidence of clients due to their commitment to integrity and ethical values. This findings support Noel's (2010) assertion that firms that promote integrity and ethics are likely to win public confidence. Responses also indicated that expectations were strongly translated into standards of conduct (median = 4; skewness = -.81; mean = 3.59; standard =

1.06). The result reflects an alignment of staff behaviour with the companies' anticipations. This agrees with Jokipii's (2006) view that CE is the operating style and supportive attitude of those involved with the organisation.

Respondents' views on the above sub-dimension also showed that the companies strongly reinforced standards of conduct (median = 4; skewness = -.81; mean = 3.59; standard deviation = 1.21). The mean score suggests that processes were in place to support staff in fulfilling their duties. This result is in line with Hayes, Dassen Schilder and Wallage's (2005) assertion that integrity and ethics are the standards of behaviour which exist to guide staff in the performance of their duties. Further, the median value of 4 with its associated skewness of .80 (mean = 3.52; standard deviation =1.14) also showed that the companies had strong procedures for evaluating the performance of staff against expected standards of behaviour. The strong response corroborated findings by Mugo (2013) that management closely monitored the implementation of internal controls.

Regarding the second sub–dimension of CE, the dimension captured the extent to which the board of directors demonstrated independence from management and exercised oversight towards the development and performance of CE. The first indicator for the sub-dimension captured the extent to which the companies maintained and evaluated the skills of members. The second indicator captured the degree with which the companies' committees oversaw the integrity of financial reports and completed those reports on time. The last indicator relating to the dimension measured the extent to which chief executive officers' performances were evaluated.

88

From the responses, the companies' board of directors generally demonstrated independence from management and exercised oversight towards CE (median = 4; skewness − 1.01; mean= 3.59; standard deviation = .91). This was to allow management the autonomy to perform their duties while monitoring their actions from the top. The results support the findings of Njeri (2014) that the board of governors of Kenya manufacturing firms and its committees were independent of management. Periodic maintenance and evaluations of the skills of staff also recorded a strong rating (Median = 4; skewness = -0.74; mean= 3.58; standard deviation= 1.08). The result implies that the companies were committed to maintaining the skills of staff. This finding agrees with WHO's (2013) view that maintenance of employee skills enables employees to acquire the expertise.

The responses obtained from the companies' respondents on the above sub-dimension also indicated that the committees that oversees the integrity of financial reports completed their report on time (median =4; skewness = -.64 mean = 3.59; standard deviation =1.06)). The result means that the committees were committed to ensuring the integrity of the financial reports. This finding supports Mawanda's (2008) result that management was committed to the operation of the accounting and financial management system. With respect to evaluating chief executive officers' performance, the companies reported a strong rating as indicated by the median score of 4 with an associated skewness value of -0.65 (mean = 3.60; standard deviation = 1.01)). This was to ensure the executives were up to the task (Asare, 2006).

With regards to the third sub-dimension of CE, the issue measured the extent to which the companies established reporting lines, authorities and

89

responsibilities in the pursuit of objectives. The first indicator measured the extent to which the companies' organizational structure fit their complexities. Indicator two measured the extent to which the companies' specific lines of authority and responsibility ensured compliance with regulations. The last indicator under the dimension captured the magnitude with which the companies understood the importance of control measures.

From the result, the companies' organizational structure fit their complexities (median = 4; skewness = - .62; mean = 3.60; standard deviation = .94). The implication is that the companies' organisational structures matched their settings. This was to enhance organisational performance. The result corroborates the argument of Donaldson (2006) that organisations that perform well matches their structures with their context. Specific lines of authority and responsibility ensured compliance with regulations (median = 4; skewness = -.48 (mean = 3.55; standard deviation = .96). This findings support the result of Ndugu (2013), that organisational structures adequately reflected the chain of command at the University of Nairobi Enterprise and Service Limited.

Further, responses from the third sub-dimension indicated that the companies understood the importance of ICS (median = 4; skewness -0.41; mean = 3.33; standard deviation =1.15). Thus the companies' employees understood that ICS are the checks and balances that support the mission statement. The result supports DiNapoli's (2007) submission that personnel are expected to know and understand the importance of their ICS responsibilities so as to accomplish the organisation's mission. The indicators resulted in an overall, strong rating regarding the appropriateness of reporting

lines, authorities and responsibilities by the companies (median = 3.66; skewness = -.86; mean = 3.49; standard deviation = .94). These measures were to support the achievement of organisational objectives (COSO, 2013).

The fourth sub-dimension of CE measured the extent to which the companies demonstrated a commitment to competence. The leading indicator measured under this sub-dimension looked at the extent to which regular employees' evaluations were documented. The ensuing indicator measured the extent to which mentoring and training opportunities were provided by the companies. The last indicator considered the extent to which credentials of prospective employees were checked.

Per the results, regular employees' evaluations were documented (median = 4; skewness = -.62; mean = 3.64; standard deviation = 1.00). The respondents' view also pointed out that the companies provided mentoring opportunities for employees (median = 3; skewness = -.45; mean = 3.42; standard deviation = 1.11). The findings showed that the companies were committed to nurturing employees. This was to develop talents in support of objectives (WHO, 2013). The findings further showed that the companies checked the credentials of prospective employees (median = 4; skewness = -.26; mean = 3.34; standard deviation = 1.11). This was to engage employees with the requisite skills. The result supports the asertion of Shim (2011) that checking employee credentials allows organisations to attract competent staff.

Generally, the companies were committed to competence (median = 3.66; skewness = -.52; mean = 3.46; standard deviation = .90). The implication is that the companies were committed to attracting and developing competent

staff. The overall high score was to ensure employees have the skills, knowledge and the ability to perform their assigned task (DiNapoli, 2007).

The last sub-dimension of CE measured the extent to which the companies held individuals accountable for their internal control responsibilities. The dimension had three indicators. The first one measured the extent to which periodic training was held to ensure employees were aware of their internal control duties. Indicator two captured the extent to which employees of the companies received training regarding their ICS duties. The last indicator under the dimension measured the extent to which disciplinary actions were documented and made available for employee review.

According to the respondents' views, employees were aware of their duties pertaining to ICS (median = 4; skewness = 1.05; mean = 3.77; standard deviation = 1.07). The meaning of the result is that employees knew their obligations regarding the control systems. This was to help achieve internal control objectives (Treba, 2003). Respondents' views also substantiated that employees of the companies received training regarding their ICS duties (median = 4; skewness = -1.05; mean = 3.54; standard deviation = 0.98). The training was to orient employees on their internal control roles. The finding is in support with Arwinge's (2013) assertion that offering training on ICS equips employees with the requisite skills needed to perform their ICS roles.

The responses further pointed out that disciplinary actions were documented for employee review (median = 4.00; skewness = - .83; mean = 3.57; standard deviation = 1.19). The results showed that respondents affirmed that disciplinary actions were available for employee review. This was to enable employees to know the repercussions of their actions (Kaplan, 2008).

Largely, the companies held individuals accountable for their ICS duties (median = 4.00; skewness = -1.19; mean = 3.62; standard deviation = .92). The findings implied that internal accountability processes such as performance review were in place for task assigned to staff. This was to improve performance and enhance the accountability function of all staff (Mugo, 2013).

After analysing each indicator of CE, the study went further by aggregating all the indicators into a single score. Subsequently, descriptive analysis was performed on the score. Per the views, the companies' CE was strong (median = 3.86; skewness = -1.24; median = 3.86; standard deviation = .87). These findings support the basis for the significant positive relationship obtained between control environment and performance by Noel (2010) in his study of control environment and liquidity levels in indigenous Ugandan Commercial Banks. This is because according to Ramos (2004), a strong control environment enhances organisational performance. The subsequent paragraph is a discussion on risk assessment.

The next broad issue examined under this objective was risk assessment. Risk assessment had four sub-dimensions and the first specific issue addressed included the extent to which the companies specified objectives with sufficient clarity to enable the identification and assessment of risks relating to objectives. The first indicator relating to this sub-dimension captured the extent to which the companies specified objectives with sufficient clarity that enabled the identification and assessment of risk to the achievement of objectives.

93

The next indicator measured the extent to which the companies used operational objectives as a basis for allocating the resources needed to attain desired performance. Also, the last indicator under the first specific issue captured the extent to which the companies used entity-wide measures and assessed the risk that those measures may not prevent material misstatements.

Per the median score of 4 with the associated skewness value of -.91 (mean= 3.64; standard deviation = 1.16), the result showed that the companies demonstrated strong specification of objectives with sufficient clarity. This was to enable the companies identify and assess risks relating to objectives in order to mitigate those measures. This affirms WHO's (2013) assertion that stating organisational objectives with sufficient clarity allows the identification, assessment and mitigation of risks relating to objectives. The responses also emphasized that the companies strongly used operational objectives as a basis for allocating the resources needed to attain desired performance (median = 4.00; skewness = -0.96; mean =3.66; standard deviation = 1.07). This was to ensure efficient use of organisational resources (Gyasi, 2013).

Further responses from respondents indicated that the companies used entity-wide measures and assessed the risk of material misstatement (median = 4.00; skewness = -0.57; mean = 3.68; standard deviation = 1.06). This was to find alternative measures to address such misstatement (Kaplan, 2014). In general, the companies specified objectives with sufficient clarity which enabled identification and assessment of risks associated with objectives (median = 4.00; skewness = -1.18; mean = 3.69; standard deviation = .95). This was expected given the high risk nature of the industry. The results

94

support the findings of Ndugu (2013) that management defined appropriate objectives and identified risks that affected achievement of the organisation's objective.

The second sub-issue under risk assessment measured the extent to which the companies identified risks to the achievement of objectives across the entities and analysed risk as a basis for determining risk management measures. The first indicator captured the extent to which the companies' risk identification considered both internal and external factors and their impact on the achievement of objectives. The next indicator considered the extent to which the companies adequately and effectively managed the risks and had in place controls to mitigate the identified risks. The last indicator under the sub-issue captured the extent to which the companies developed performance indicators for key objectives and monitored the status of the indicators.

 Largely, the companies identified and managed risk across the entities (median = 4.00; skewness = -1.10; mean = 3.65; standard deviation =.98). The findings suggest that risk identification and risk management was of great importance to the companies. This was to reduce risk to an acceptable level (Hopkin, 2012). The result also showed that the companies' respondents scored that risk identification considered both internal and external factors and their impact on the achievement of objectives (median= 4.00; skewness = -0.91; mean =3.64; standard deviation = 1.16). This finding supports the view of Sayior's (2010) that management processes must consider internal and external risk factors and their impact on organisational performance.

The survey further showed that the companies adequately and effectively managed the risks and had in place mitigating policies to identified

risks (median = 4.00; skewness = - 0.38; mean= 3.65; standard deviation = 1.02). This portrays that the companies established risks mitigating policies and managed identified risks. In support of these findings, Njeri (2014) concluded that management of Kenya manufacturing firms had in place mechanisms for mitigating identified risks. In addition, the companies strongly developed and monitored performance indicators (median = 4.00; skewness = -1.11; mean = 3.67; standard deviation = 1.08). The reason for such measures was to monitor performance overtime. This aligns with Dinapoli's (2007) argument that instituting control mechanisms allows organisations to monitor performance standards.

The next sub-issue that was considered under risk assessment measured the extent to which the entities considered the potential for fraud in assessing risks. Per the first indicator, the companies measured the extent to which assessments of their exposure to fraudulent activities were conducted. The next indicator measured the extent to which the companies assessed their operational brunches for exposure to fraudulent activities. The third indicator also measured the extent to which companies assessed fraud risks and considered opportunities for inappropriate acts.

The companies generally considered the potential for fraud in assessing risk (median = 4.00 skewness = -1.20; mean = 3.76; standard deviation = 1.02). Assessing the potential for fraud is an indication that the companies were committed to addressing fraudulent activities. This is in line with Kaplan's (2008) statement that considering the potential for fraud allows organisations' to identify and address fraud related risk. The responses also showed that the companies conducted assessment of their exposure to

96

fraudulent activities (median = 4; skewness = -0.72; mean = 3.75; standard deviation = 1.11). This was to put in place checks and balances to prevent fraud, waste and abuse. The result supports Moller's (2013) view that the purpose of identifying and managing exposures to fraud related activities is to prevent fraud, waste and abuse.

Views from the companies' respondents also suggests that operational branches were assessed for exposure to fraudulent activities (median = 4.00; skewness = - 0.96; mean = 3.73; standard deviation = 1.17). The motive for such an assessment was to identify and address any exposure to fraud at the branch level. This was to find remedies to any identified fraud related risk (Woolf, 2014). Lastly, the rate for the companies assessment of fraud risks and consideration of opportunities for inappropriate acts was strong (median = 4.00; skewness = -1.06; mean = 3.81; standard deviation = 1.17). The result reveals that the companies assessed the opportunity for employees to engage in inappropriate act. This was to develop controls so as to address any opportunities for inappropriate acts (Shim, 2011).

The fourth sub-dimension of risk assessment measured the extent to which the companies assessed changes that significantly impacted the control systems. Indicators measured under this dimension firstly measured the extent to which companies identified and reacted to risks presented by changes in the business environment. The following indicator measured the extent to which the companies identified the most significant risk affecting their operations. Last but not least indicator captured the extent to which the companies established controls for the purpose of mitigating the most significant risks identified.

97

Given the result, the companies generally assessed changes that significantly impacted the ICS (median = 4.3; skewness = -1.12; mean = 3.73; standard deviation = 1.06). The findings revealed that the companies assessed the significant effect of changes on their ICS. This was to enable the companies align their ICS to their contingency characteristics so as to boost performance (Jokipii, 2009). To achieve this, the structure of ICS must suit the contingency characteristics (Donalson, 2006). The responses also showed that the companies managed risk associated with changes in the environment (median = 4.00; skewness -.81; mean = 3.74; standard deviation = 1.13). The results suggest that the companies dealt with risks associated with changing customer demands. This result agrees with Hopkin's (2010) assertion that risk management activities should be dynamic and responsive to the changing economic and competitive environment.

Regarding the next issue, the results showed that the companies strongly identified pertinent risks affecting their operations (median = 4.00; skewness = -0.99; mean = 3.80; standard deviation = 1.18). The result indicates that the companies made effort in identifying significant risks affecting their operations. This supports Ndugu's (2013) findings that management ascertained critical risk relating to objectives. The companies' respondents further indicated that controls were in place to mitigate the most significant risks identified (median = 4.00; skewness = 0.82; mean = 3.67; standard deviation = 1.15). The aim was to curb down the effect of the most significant risks on the companies. This finding is consistent with the results of Njeri (2014) who found that the management of Kenya manufacturing firms had mechanisms for mitigating the most critical risks.

Upon analysing each indicator of risk assessment, the study aggregated all the indicators into a single score for the purpose of analysing the dimension. The overall condition of risk assessment in the Ghanaian insurance industry was strong. This is supported by (median = 4.00; skewness = -1.32; mean = 3.71 standard deviation = .96). This could mean that the companies were committed to enhancing the effectiveness of their risk management mechanisms through specification of objectives with sufficient clearity. The results support Arwinge's (2013) assertion that the important aspect of every system of control is the commitment to implementation by those responsible. The subsequent paragraph discusses the condition of control activities.

Control activities, was the next dimension that was addressed under the objective. Control activities had three sub-dimensions. The first sub-dimension measured the extent to which the companies selected and developed mitigating measures of risks. Indicator one under the first sub-dimension captured the extent to which the companies determined control procedures for business processes. The subsequent indicator measured the magnitude with which the companies considered control measures at all levels. The third indicator captured the extent to which the companies segregated duties.

The results revealed that the companies generally developed strong mitigating measures of risks (median = 4.00; skewness = -.83; mean = 3.59; standard deviation = .94). The reason for such measures was to ensure efficient use of resources (Muraleetharan, 2011). In support of these findings, Sayior (2010) was of the view that policies and procedures provided appropriate approvals and independent verifications of assets of DnB NOR ASA. The views also indicated that the companies determined control

99

procedures for business processes (median = 4.00; skewness – 0.86; mean = 3.60; standard deviation = 1.08). The results could mean that the companies paid much attention to determining controls for business processes. This was to provide reasonable assurance concerning the achievement of organisational objectives (Chebungwen & Kwasira, 2014).

The companies further considered strong control measures at all levels (median = 4.00; skewness = -8.6; mean = 3.59; standard deviation = 1.08). Such action was to enhance efficient conduct of business at all levels. The finding supports Arwing's (2010) view that internal control ensures efficient conduct of business operations. For segregation of duties, the respondents reported strong rating for their companies (median = 4.00; skewness = - 0.45; mean =3.59; standard deviation = 1.08). The mean score of 3.59 suggests that the companies placed much importance on segregation of duties. However, the corresponding standard deviation suggests varied responses. This finding could explain the assertion of Mawanda (2008) that University of Higher Learning in Uganda clearly separated the roles of finance and accounting department.

In order to know the extent to which the companies selected and developed general control measures over technology, respondents from the companies were asked to indicate their magnitude of agreement. The first indicator captured the extent to which companies restricted technology access rights to authorized users. The second indicator measured the extent to which companies implemented control measures over the development and maintenance of technology. Indicator three under this dimension measured the

100

extent to which the companies backed-up and tested the proper functionality of files.

Interestingly, the responses revealed that the companies generally had controls over technology (median = 4.00; skewness = -1.15; mean = 3.60; standard deviation = 1.02). The intent of such controls was to ensure the proper functioning of information systems. The results affirm the study of Ndugu (2013) which showed that controls were in place to correct errors in the accounting system. The views from the respondents also indicated that the companies restricted technology access rights to authorized users (median = 4.00; skewness = - 0.98; mean = 3.66; standard deviation = 1.19). This may be an indication of proper segregation of duties. However, the finding is inconsistent with the result of Mawanda (2008) who found that respondents were almost indifferent as to whether it was impossible for one staff to have access to all valuable information without the consent of a senior staff.

Implementation of controls over the development and maintenance of technology were strongly encouraged by the companies (median = 4.00 skewness = - 0.76; mean = 3.57; standard deviation = 1.14). The effort made was to ensure proper functioning of information technology. This was to avoid sudden break down of the information systems (WHO, 2013). Adequate back-ups and testing of files were available in most of the companies to ensure proper functionality of files (median=4.00; skewness = -0.90; mean = 3.59 standard deviation = 1.06). The result shows that the companies encouraged backing-up and testing of files. This was to avoid loss of salient information. The finding corresponds with the results of Njeri (2014) that Kenya

manufacturing firms had in place security systems which identified and safeguarded organisational assets.

In order to obtain responses on the third sub-dimension of control activities, the respondent were asked to indicate the extent to which their companies ensured adherence to policies and procedures. Indicators that were measured under this sub-dimension included firstly, the extent to which the companies installed compensating controls for duties lacking segregation. The second indicator captured the extent to which the companies performed periodic reviews. The subsequent indicator under this dimension captured the degree with which the companies maintained procedures on accounting transactions.

The outcome of the results, revealed that the companies control mechanisms generally ensured adherence to policies and procedures (median =4.00 skewness = -1.35; mean = 3.71, standard deviation = .91). This was indicative of effort towards the achievement of objectives. The finding is in line with Asare's (2006) assertion that in order to reduce agency loss, the principal tasks those charged with governance to design and implement internal control purposely to achieve organisational objectives. The companies had compensating controls for duties lacking segregation (median = 4.00; skewness = -0.83; mean = 3.87; standard deviation = 1.01). The reason was to avoid manipulation of the system. The finding corresponds with the views of Ejoh and Ejom, (2014) that compensating controls minimise control override.

The companies' respondents further rated performance of periodic reviews as high (median = 4.00; skewness = 1.16; mean = 3.79; standard deviation = 1.16). The result suggests that considerable effort were made by

102

the companies in the area of performance reviews. This was to compare actual performance with budgets so that any variance may be addressed (Whittington & Pany, 2006). Lastly, the companies maintained procedures on accounting transactions (median = 4; skewness = -.87; mean = 3.59; standard deviation = 1.06). The findings connote that measures were in place to ensure the proper recording, analysing and reporting of accounting transactions. Interestingly, the findings support the result of Sayior (2010) who found that the independent and effective audits ensured satisfactory control measures as well as reliable financial reporting.

After analysing the indicators of control activities, the researcher aggregated all the indicators into a single score. This was to determine the condition of control activities in the industry. The result discovered that on the whole, control activities reported a strong rating (median = 3.90; skewness = -1.28; mean = 3.66; standard deviation = .88). This connotes that the companies in the industry paid much attention to enhancing the effectiveness of their control activities. This finding is inconsistent with the results of Ejoh and Ejom (2014) that due to the inadequate training of staff to implement the accounting and financial system the current internal control activities at Cross River State College of Education were weak.

The next broad issue that was looked at under this objective was information and communication. Information and communication had three sub-dimensions. The first sub-dimension measured the extent to which the companies generated information to support the functioning of other components of ICS. Per the first indicator, the sub-dimension measured the degree with which the companies' committees reviewed and communicated

103

policy updates. The ensuing indicator captured the magnitude with which the companies established procedures for record filing and retention. The last indicator captured the extent to which the companies provided accounting systems for separate identification of each transaction. The next paragraph presents the results.

Largely, the companies supported the other components of ICS with information (median = 3.66; skewnesss = -.95; mean = 3.52; standard deviation = .89). The results implied that the companies generated relevant and quality information for the purpose of supporting the effective functioning of the other components of ICS. Such actions were to warrant the effective running of the other components of ICS (Sarens & Abdolmohammabi, 2011). Finding also showed that companies' committees strongly reviewed and communicated policy updates (median = 4.00; skewness = - .76; mean = 3.56; standard deviation = .99). The intent of such communications was to enhance the relevance of policies and procedures (Njeri 2014).

Similar to the above ratings, the companies had strong procedures for record filing and retention of records (median = 4.00; skewness = -.049; mean = 3.48; standard deviation = 1.07). The result explains that the companies adhered to regulations. This was to conform to accounting regulations (Gyasi, 2013). The respondents' views also showed that the companies provided accounting systems for separate identification of each transaction (median = 4.00; skewness = -.46; mean = 3.45; standard deviation = 1.05)). The implication is that the companies were concerned with proper identification and accounting of business transactions. In support of the findings, the conclusions of Mawanda (2008) indicated that Martyrs University had

accounting and financial management system for processing business transactions.

The second sub-dimension under information and communication sought to measure the extent to which the companies internally communicated information necessary to support the functioning of other components of ICS. The first indicator measured the extent to which the companies provided accounting systems for separate identification of each transaction. Indicator two captured the extent to which the companies' management and the board of directors acquired information to fulfil their roles. The last indicator measured the extent to which the companies' code of conduct expressly prohibited ICS override.

The findings indicated that the companies internally communicated information necessary to support the functioning of the other components of ICS (median = 3.5; skewness = -.84; mean = 3.48; standard deviation = 1.04). It means that salient information were captured and communicated within the companies for the purpose of ensuring the effective running of the other components of ICS. This was to enhance the proper operation of the other components of ICS (Noel, 2010). Also, responses disclosed that management acquired information to fulfil their roles (median = 4.00 skewness = -.64; mean = 3.48; standard deviation = 1.16). The motive was to ensure that individual staff members have the information they require to carry out their duties (Rettenbergs, 2013).

The responses on the above issue further indicated that the code of conduct expressly prohibited ICS override (median = 4.00; skewness = - .51; mean = 3.64; standard deviation = 1.11). The finding means that measures

were in place to avoid circumvention of ICS. The essence was to help achieve internal control objective (DiNapoli, 2007). Lastly, the respondents scored the companies processes for communicating policy updates as strong (median = 4.00; skewness = -.85; mean = 3.52; standard deviation 1.16). The purpose was to keep staff abreast with what is expected of them in their line of work (Shim 2011).

Regarding the third sub-dimension on information and communication, the dimension measured the extent to which the companies communicated with external parties regarding matters that affected the functioning of other components of ICS. The sub-dimension had three indicators. The first one measured the extent to which the companies established processes for reporting suspected improprieties. The next indicator measured the extent to which the companies communicated relevant information to external parties. Indicator three captured the extent to which the companies established processes for communicating report provided by external parties.

The views from the companies' respondents showed that processes were in place for reporting suspected improprieties (median =4.00; skewness = -.38; mean = 3.51; standard deviation = 1.05). Such procedures were to evaluate how well guidelines are being adhered to. The result supports Njeri's (2014) findings that communication helped in evaluating how policies were being implemented. The companies also communicated relevant information to external parties (median = 4.00; skewness = 1.00; mean = 3.63; standard deviation = 1.05). The mean score of 3.63 was an indication that staff placed much importance on communicating relevant information to external parties.

The finding is in support of Kaplan's (2013) assertion that effective communication ensures high quality external reporting.

On the establishment of processes for communicating report provided by external parties, the companies reported a high rating (median = 4.00; skewness =1.00; mean = 3.99; standard deviation = 1.02). The result implies that channels were in place for addressing external audit report. This is in support of Cao Thi Thanh and Cheung's (2010) findings that quality internal controls minimize information asymmetry through quality reporting. This culminated in a strong communication with external parties on matters that affected the functioning of other components of ICS (median = 4.00; skewness = -1.23; mean = 3.70; standard deviation = .87). This was to find remedies to issues affecting the effective running of the other components of ICS (COSO, 2011).

Afterwards, all the indicators of information and communication was aggregated into a single score and analysed based on objective one. The findings showed that information and communication dimension of companies in the Ghanaian insurance industry reported a strong rating. This is evidenced by the median score of 3.75 with an associated skewness value of -1.17 (mean = 3.57; standard deviation = .88). The implication of the result is that the companies had in place stringent measures for enhancing the effectiveness of their information and communication systems. This finding is consistent with the view of Muraletheran (2011) that weak information and communication systems have no significant influence on performance. The next paragraph discusses monitoring.

The first sub-dimension under monitoring measured the extent to which the companies developed and performed separate evaluations to ascertain the functioning of the components of ICS. Indicators that were measured under this dimension were firstly, the extent to which the companies evaluated business processes. The next indicator measured the extent to which the companies audited the brunches regarding compliance with policies and procedures.

The companies' respondents rated periodic evaluation of business processes as strong (median= 4.00 skewness = -.53; mean = 3.34; standard deviation = 0.99). The results show that periodic evaluations of business processes were conducted. This will help assess the effectiveness of controls and the quality of performance. This agrees with the view of DiNapoli (2007) that a review of an organisation's activities helps in assessing the quality of performance and the effectiveness of the control systems.

Furthermore, the companies determined adherence to procedures by branches (median = 3; skewness = -.38; mean= 3.44; standard deviation = -.92). This resulted in a strong rating regarding the performance of separate evaluations (median = 3.66 skewness = -1.28; mean = 3.60; standard deviation = .80). The intention was to ascertain the effectiveness of the other components of ICS (Moller, 2013). The finding implies that the companies were committed to assessing the effectiveness of the control system. This has the effect of influencing performance. The results corroborate with the findings of Njeri (2014) who found that manufacturing firms in Kenya performed independent checks and process evaluations of their controls.

108

The second sub-dimension on monitoring measured the extent to which the companies evaluated and communicated ICS deficiencies in a timely manner to those responsible for taking corrective action. Indicators that were measured under this sub-dimension included the extent to which the companies ICS complied with NIC requirement and communicated same to board of directors. The other indicator measured the extent to which the companies monitored the branches to ensure that funds provided were expended only for allowable activities.

Responses from the respondents revealed that the companies strongly evaluated compliance of ICS with NIC's requirement (median =3 skewness = - .41; mean = 3.40; standard deviation = 1.19). This result implies that effective mechanisms were in place to check the companies' compliance with NIC's ICS requirement. The result supports the result of Ndugu (2013) that through monitoring the organisation determines whether policies and procedures are being complied with. The companies' respondents also indicated that branches were strongly monitored to ensure funds provided were expended only on allowable activities (median = 4.00 skewness = -.48; mean = 3.60; standard deviation = 1.11). This was to ensure compliance with policies and procedures (Mugo 2013).

Overall, the result reveals that the companies strongly evaluated and communicated ICS deficiencies in a timely manner to those responsible for implementing corrective action (median = 3.5; skewness = -.94; mean = 3.50; standard deviation = .83). The result implies that feedbacks from control assessment were reported to responsible officers for corrective action. This findings support the results of Saiyor (2010) who found that control

assessment reports were provided on time to allow for appropriate action by both the board and management.

In order to assess the overall condition of monitoring, all the indicators of monitoring were aggregated into a single score. After assessing the general condition of monitoring, the result showed that on the whole, the companies demonstrated strong condition of monitoring (median = 3.66; skewness = -1.39; mean = 3.5; standard deviation = .74). This finding supports the result of Noel (2010) who found strong monitoring systems as one of the variables that influence performance. The subsequent paragraph is a discussion on the condition of internal control systems using the four categories.

Although three categories namely life, non-life and brokerage insurance companies attained strong rating on their CE, brokerage firms attained the strongest CE score (median = 3.37; skewness = -1.38; mean = 3.70 standard deviation = .83). This was followed by non-life with a median score of 3.86 and associated skewness value of -1.59 (mean = 3.66; standard deviation = .63) and life insurance companies (median = 3.73; skewness = -.94; mean = 3.32; standard deviation = 1.07). The other insurance companies recorded a weak CE (median = 3.26; skewness = -.24; mean = 2.70; standard deviation = 1.17). The finding from the other insurance companies was inconsistent with Whittington and Pany's (2006) assertion that control environment is that aspect of internal control that offers the structure and discipline for realising internal control objectives.

Conditions of risk assessment were strong among the life insurance, non-life insurance and brokerage firms. Non-life insurance companies had the strongest risk assessment score (median = 3.91; skewness = - .05; mean =

110

3.78; standard deviation = .48), followed by life insurance companies (median = 4.25; skewness = -1.34; mean = 3.76; standard deviation = 1.13), and brokerage companies (median = 4.25; skewness = -1.39; mean = 3.78; standard deviation = 1.04). The condition was however weak for other insurance companies (median =2.83; skewness = .01; mean = 2.58; standard deviation = 1.17). This finding will help the other insurance companies to put in place stringent risk assessment procedures. The result is in agreement with Kaplan's (2012) view that risk assessment forms the basis for determining where internal control activities are needed.

Similar to the conditions of risk assessment, the conditions of control activities were strong for non-life, life and brokerage insurance companies. Non-life insurance companies had the strongest control activities (median = 4.20; skewness = -.85; mean = 4.05; standard deviation = .46). Brokerage companies came next (median = 4.00; skewness = -1.29; mean = 3.65; standard deviation = .99) while life insurance companies followed (median = 3.50; skewness = -1.10; mean = 3.36; standard deviation = .72). Other insurance companies scored weak conditions on their control activities (median = 3.00; skewness = .01; mean = 2.58; standard deviation = 1.22). The weak condition for other insurance companies means that policies were not being adhered to. The result is consistent with the conclusions of Sayior's (2010) that employees failed to comply with the policies and procedure at all times.

Regarding the condition of information and communication, except for other insurance companies, non-life, life and brokerage firms attained strong systems of information and communication. Non-life insurance companies had

111

the strongest communication system (median = 3.72; skewness = -.22; mean = 3.76; standard deviation = .44). Life insurance companies followed next (median = 3.88; skewness = -1.28; mean = 3.69; standard deviation = .90), whereas brokerage insurance companies came third (median = 3.77; skewness = -.96; mean = 3.50; standard deviation =.98). The findings revealed that information and communication system were functional (Njeri, 2014) among for life, non-life and brokerage insurance firms.

Other insurance companies, however, reported weak communication systems (median = 3.22; skewness = -.27; mean = 2.75; standard deviation = 1.26)). This finding means that the weak information and communication system may render the other component of ICS ineffective. This result is consistent with COSO's (2011) assertion that weaknesses in communication systems may render the other components of internal controls ineffective.

The conditions recorded for monitoring were strong for life, non-life and brokerage insurance firms. Life and non-life insurance companies had the strongest monitoring and evaluation scores. Life insurance had a median score of 4.00 with an associated skewness of -1.78 (mean = 3.64; standard deviation = .77), while non-life insurance obtained a median value of 3.60 with an associated skewness -.03 (mean = 3.64; standard deviation = .46). Brokerage firms came next (median = 3.80; skewness = -1.31; mean = 3.59; standard deviation = .74). The results showed that measures were in place to enhance the effectiveness of the monitoring mechanisms. This was to help achieve the internal control objective (DiNapoli, 2007).

Other insurance companies recorded weak conditions of monitoring (median = 2.80; skewness 1.00; mean = 2.56; standard deviation = 1.27). The

result for other insurance companies is an indicative of the fact that other insurance companies failed to pay attention to their monitoring systems. This is in line with Treba's (2003) assertion that monitoring enables an organisation to determine whether the ICS is properly designed and functioning.

In order to analyse the composite dimension of internal control systems, the scores for each dimension was aggregated into a single score known as internal control systems. Afterwards, the study went further to analyse the condition of internal control systems using medians, skewness, means and standard deviations. The finding is presented in the next paragraph.

The overall condition of internal control systems per category of insurance companies in Ghana was similar to that of the individual dimensions. Non-life insurance companies had the strongest ICS (median = 3.96; skewness = -.99; mean = 3.64; standard deviation = .84). Brokerage companies obtained the next highest score (median = 3.96; skewness = -1.39; mean = 3.64; standard deviation = .84). This was followed by life insurance with a median score of 3.99 and an associated skewness value of -1.45 (mean = 3.56; standard deviation = .84). Other insurance companies however obtained a low rating with a median score of 3.21 and an associated skewness of -.29 (mean = 2.66; standard deviation = .84).

The above results show that non-life, life and brokerage insurance companies had in place effective systems of control. This is reflected by their strong mean scores. The findings support the results of Ndugu (2013) that the system of internal control was functional at UNES. However, results from other insurance companies indicated that the other insurance companies failed to match their control system with their contingencies. This finding is

consistent with the view of Pock (2007) that successfully adapting control system to suit contingency characteristics results in effective control systems. The next section is a discussion on condition of performance.

Condition of Performance

The condition of performance was the next issue discussed under objective one. Performance measures selected was divided into financial and non-financial performance. The financial measures captured return on asset and liquidity while the non-financial measures measured customer base, quality of service, flexibility, resource utilization and innovation. In order to combine the multi-dimensional measures of performance, self-assessment questionnaires were used for data collection.

The conditions of each indicator and the composite dimension of performance were independently determined, using a mean scale of 1 to 5 with 1 to 2.9 indicating low level of performance and 3 to 5 indicating high level of performance. To correct for possible errors, the cut-off point was based on the mean scale of 3 minus 0.1 as used by Yeboah (2013). Assessment was for the entire industry as well as the four categories. The first was centred on financial performance followed by non-financial performance

For financial performance measures, two performance indicators were measured in the study. These were return on assets and liquidity. The indicators for return on assets measured the extent to which the companies performed on the basis of return on asset while that of liquidity measured the magnitude with which the companies performed on their liquidity. Prior to analysing the overall measure of financial performance, the individual indicators were analysed.

114

The results indicated a high level of performance for both indicators of financial performance. However, responses showed that the companies performed a little higher with respect to liquidity (median = 4.00; skewness = .91; mean = 3.78; standard deviation = .96) than on their return on asset (median = 4.00; skewness = -.9; mean = 3.66; standard deviation = .96).This finding is in line with Zimmerman's (2011) assertion that ICS reduce agency cost and boost performance. In all, the aggregated level of financial performance for the period was high (median = 4.00; skewness = -1.17; mean = 3.71; standard deviation =.89). The results could be attributed to effective control systems established by the companies in the industry. The findings are consistent with the conceptual framework and El-Mahdy and Park's (2013) assertion that ICS reduce opportunistic behaviour and improves firm performance.

Customer base, quality of service, flexibility, resource utilisation and innovation were the non-financial performance indicators measured. The indicator on customer base measured the extent to which the companies increased the number of their customers. Quality of service also measured the extent to which service value improved. Of the five, flexibility measured the companies' responsiveness to clients' needs. Resource utilisation captured the magnitude with which the firms made valuable use of resources. Lastly, innovation measured the proportion of new sales to old sales

Regarding customer base, quality of service and flexibility, the responses from the companies revealed that all the three non-financial performance measure mentioned above attained high ratings. Nonetheless, service value was the most highly rated (median = 4.00; skewness = -.79;

115

mean = 3.65; standard deviation = 1.09). This was followed by customer base (median = 4.00; skewness = - .52; mean = 3.60; standard deviation = .97). Next was the companies responsiveness to clients' needs (median = 4.00; skewness = -.55; mean = 3.49; standard deviation = 1.02). The results could mean that the system of control was effectively implemented. This supports the view of Gyasi (2013) that effective design and implementation of ICS enhance performance.

Other non-financial performance indicators that were looked at included resource utilisation and innovation. Comparatively, the responses from the companies showed that even though both resource utilisation and innovation reported a high rating, valuable use of resources was the most highly rated. This is evidenced by the median score of 4.00 with an associated skewness value of -1.05 (mean = 3.66; standard deviation = .95). This was followed by innovation with a median score of 4.00 and an associated skewness value of - .55 (Mean = 3.49; standard deviation = 1.02). On the aggregate the non-financial measure was highly rated (median = 3.60; skewness = -.09; mean = 3.59; standard deviation = .85). The high performance levels could be attributed to the role of the agency theory in organisations (Sharma, 1997).

Although both the financial (median = 4.00; skewness = -1.17; mean = 3.71; standard deviation =.89) and non-financial performance scored high ratings (median = 3.60; skewness = -.09; mean = 3.59; standard deviation = .85), the financial performance measure was highly rated than the non-financial performance. This could mean that the companies focused much effort on attaining their non-financial performance measures. The next

116

paragraph centres on performance levels among the four categories. The first part centres on financial performance while the second part focuses on non-financial performance.

Of the four categories of companies in the industry, life, non-life and brokerage firms scored high on their financial performance measures for the period under investigation. Brokerage firms obtained the highest score (median = 4.00; skewness = -1.25; mean = 3.88; standard deviation = -93). Non-life came next with a median score of 4.00 and an associated skewness value -.10; mean = 3.71; standard deviation = .53). This was followed by life insurance with a median value of 4.00 and a skewness figure of -1.40 (mean = 3.64; standard deviation = .93). However, the other insurance companies scored low on their financial performance measures (median = 3.00; skewness = -.36; mean = 2.60; standard deviation = 1.29).

The above results imply that on the average, brokerage, life and non-life insurance companies performed well on their financial performance measures. The findings may mean that the companies paid much attention to their control systems. This could be linked to the assertion of the agency theory that aligning employee motives with that of the organisation enhances organisational performance (Lubatkin, 2005). On the other hand, the results from the other insurance firms indicate that the companies did not pay much attention to their control systems. The findings support the basis for the weak systems of internal control among the other insurance companies. The findings support the study of Muraletheran (2011) who found a positive relationship between control environment and performance.

117

Even though non-financial performance were above the cut-off point for life, non-life and brokerage firms, life insurance obtained the strongest score (median = 3.80; skewness = -1.01; mean = 3.7; standard deviation = 1.05). Brokerage came next (median = 3.60; skewness = -.02; mean = 3.68; standard deviation = -1.05). Unlike the financial performance, non-life insurance companies attained the least strong score with a median of 3.40 and an associated skewness value of -0.2 (mean = 3.60; standard deviation = .57). The implication of the results could be due to a commitment to competence by life, non-life and brokerage insurance firms. The findings are in support the conceptual framework and the argument of Ndugu (2013) that a commitment to competence influences performance.

Other insurance companies however remained the sole category with low non-financial performance (median = 2.80; skewness = .24 (mean = 2.60; standard deviation = 2.80). The low performance of the other insurance companies could be attributable to misfit between the structure and the context of the organisation. This finding supports the views of Macintosh (1994), Hoque and James, Chenhall (2003) and Pfister (2009) that organisations that perform well are those that match their structures with their context.

Concerning the overall level of performance per category of companies in the insurance industry, brokerage firms performed better by recording median score of 4.00 with an associated skewness value of -1.48 (mean = 3.78; standard deviation = .84). Non-life insurance followed next (median = 3.65; skewness = -.17 (mean = 3.65; standard deviation = .50) whereas life insurance companies attained the least high score (median = 3.90; skewness = -1.30 (mean = 3.65; standard deviation =.96). The above findings from the

118

brokerage, non-life and life insurance companies are in line with Pock's (2007) assertion that successfully adapting control systems to suit organisational contingency characteristics results in effective internal control systems and better organisational performance

The level of other insurance companies remained low (median = 2.90; skewness = -1.12 (mean = 2.60; standard deviation = 1.21). The low performance of other insurance companies could be due to weaknesses in the control systems (Pratt & Zeckhauser, 1985). The next section discusses the differences in internal control system per category.

Differences in Internal Control Systems

The second objective sought to investigate the differences in internal control systems per the four categories of insurance companies. Internal control systems, according to COSO (2013), comprise five dimensions. So the differences per category were the individual differences of each of the dimensions. The first part of these results independently focused on the differences of each of the five dimensions of internal controls namely; control environment, risk assessment, control activities, information and communication and monitoring per the four categories of insurance companies. The second part of this section aggregated the scores of each dimension of ICS and analysed the differences per the four categories.

Given the Kolmogorov-Smirnov statistic in chapter three, and the conceptual framework, the non-parametric alternative of analysis of variance (ANOVA) known as Kruskal-Wallis was relied on in analysing objective two. The reasons for using Kruskal-Wallis are that firstly, the data for the independent dimensions as well as the composite dimension were not

normally distributed (Pallant, 2011). Secondly, the technique allows for comparison of scores on some continuous variable for three or more groups (Dampson & Ofori, 2011).

Prior to using Kruskal-Wallis, the general assumptions underpinning non-parametric or Kruskal-Wallis were observed. Firstly, the assumptions require the dependent variable to be measured on an ordinal or continuous scale. Secondly, the test requires three or more categorical independent groups for the factor or independent variable. Thirdly, the assumptions require the observations in each group to be independent of each other.

The Kruskal-Wallis test was conducted independently for each of the five dimensions of ICS. The indicators for each of the dimensions were separately aggregated for the purpose of each test. Each of the five dimensions was independently used as dependent variable while the four categories were relied on as factor. After, the composite dimension was also assessed for difference in ICS using the Kruskal-Wallis test. This was achieved by aggregating the scores for the five dimensions. The dependent variable and the factor were internal controls and the four categories respectively.

Assessment was based on the Chi-Square values, degrees of freedom (df), the associated significant (Sig) values, the Mean Ranks, the Post-hoc tests and the effect size. As suggested by Pallant (2011), the resulting effect size was interpreted according to Cohen's (1988). The ensuing paragraph begins with a discussion on control environment.

According to Ramos (2004), control environment is the foundation of the ICS as it sets the tone at the top, influencing the control consciousness of all staffs of an organization. Following Ramos, it could be suggested that

120

control environment is the most important variable of ICS. This is because it is seen as that aspect of internal controls that offers the structure and discipline for the realization of the main objectives of ICS in addition to the climate which affect the entire quality of the systems of internal control (Whittington & Pany, 2006).

Therefore, this study also sought to assess control environment as evidenced by a commitment to integrity and ethical values among the organizations, how the board of directors demonstrated independence from management and exercised oversight towards the development and performance of ICS. Also, the study measured control environment as evidenced by the establishment of structures, reporting lines and appropriate authorities and responsibilities in the pursuit of objectives. Further, control environment measured how the organisations demonstrated commitment to attract, develop and retain competent individuals and how these individuals were held accountable for their internal control responsibilities.

The data on control environment were captured through self-assessment questionnaires administered to the companies. The scores for the indicators under control environment were aggregated for the purpose of the analysis. In doing so, the study assumed that there are no significant differences on the mean score of control environment across the various categories of insurance companies in Ghana. Table 8 shows the descriptive statistics or the mean rank of control environment obtained from the Kruskal-Wallis test.

121

Table 8-*Mean Ranks for Control Environment*

Categories of companies	N	Mean Rank
Life	17	42.85
Non-life	26	47.27
Brokerage	43	48.97
Others	5	24.60

Source: Field survey, Amissah (2015)

Evidence from Table 8, suggests that brokerage insurance companies had the highest score 48.97 with other insurance companies (oil and gas, reinsurance and lost adjuster) reporting the lowest score 24.60. This implies that brokerage insurance companies in the Ghanaian insurance sector had the highest average score while other insurance companies had the lowest average score. The mean score from the brokerage and other insurance companies could be attributed to stringent and less stringent measures of control environment that were respectively put in place by the firms. The Test Statistics results from the Kruskal Wallis test is presented next.

Table 9-*Test Statistics Results for Control Environment*

Chi-Square	4.140
Df	3
Asymp Sig	.247

Source: Field survey, Amissah (2015)

From Table 9, the result from the Kruskal-Wallis test revealed a statistically insignificant difference in the control environment scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) =

4.140, $p = .247$. This is because the significant value of .247 is greater than the alpha level of 0.05. The findings implied that the companies had similar control environment.

The similarities in the control environment could be ascribed to the fact that all the companies operate under one industry. This result supports Drazin and Van de Ven's (1985) argument that the best way in which a company could be organised is contingent to the environment in which the company operate. Therefore, the pairwise comparisons or Post-hoc test using Mann-Whitney U test was not conducted in that the overall test was statistically insignificant. The next paragraph discusses differences in the risk assessment procedures among the companies.

Theofanis, Drogalas and Giovanis (2011) claim that risk assessment is the process of discovery and evaluating risks to the realization of an organization's objectives. Following Theofanis, Drogalas and Giovanis, risk assessment could also be seen an important component of ICS. This is because it allows corporate organisations to identify, evaluate and mitigate controllable and non-controllable risks that affect operations on a timely manner (Woolf, 2013).

Considering the nature of objective two, the study sought to examine risk assessment as evidenced by how the companies specified objectives with sufficient clarity for the purpose of identifying and assessing risks relating to objectives. Risk assessment also measured how the companies identified, analysed, and managed risks to the achievement of their objectives. The dimension also captured how the companies considered the potential for fraud

123

in assessing risks as well as the methods the companies used in identifying and assessing changes that significantly impacted ICS.

Similar to the control environment, the data on risk assessment were captured through self-assessment questionnaires administered to respondents from the companies. The indicators under the risk assessment dimension were aggregated into a single score for the purpose of analysing the data. The analysis involved testing of hypothesis which reads: 'There are no significant differences in the risk assessment procedures among the various categories of insurance companies'. The assessment was done utilising Kruskal-Wallis Test. The descriptive statistics or the mean rank result is presented in table 10.

Table 10 -*Mean Ranks for Risk Assessment*

Categories of companies	N	Mean Rank
Life	17	52.65
Non-life	26	39.15
Brokerage	43	50.65
Others	5	19.00

Source: Field survey, Amissah (2015)

The mean rank scores for the four groups were inspected. The results from Table 10, indicated that life insurance companies obtained the highest mean score 52.65 while other insurance companies had the lowest mean score 19.00. This means that the life insurance companies performed better in terms of their risk assessment mean score than the other insurance companies in the industry. The results may perhaps be the outcome of more effective and less effective measures of risk assessment procedures instituted by life and other

124

insurance companies respectively. Following is the Test Statistics table for risk assessment.

Table 11-*Test Statistics Results for Risk Assessment*

Chi-Square	9.415
Df	3
Asymp Sig	.024

Source: Field survey, Amissah (2015)

Given the results from Table 11, the Kruskal Wallis test revealed that statistically significant difference exists in the risk assessment scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 9.415, p = .024. This is explained by the fact that the significant value of .024 obtained from the Kruskal-Wallis test is less than the alpha level of 0.05. Therefore, the study conducted the pairwise comparisons using Mann-Witney U test.

The follow-up tests were conducted to evaluate the differences among the groups, controlling for Type 1 error across tests by using the Bonferroni adjustment. The results of these tests indicated existence of statistically significant difference between the risk assessment scores of non-life insurance companies (*M*= 29.15, n = 26) and brokerage insurance companies (*M* = 38.53, n = 43) *U* = 89, z = -3.36, p = .02, r =.40. The effect size value of .40 indicates a medium effect. The findings could be attributed to the different environmental uncertainties associated with non-life and other insurance companies' business. In support of the result, Richard (2003) argues that the choice of an organisation's control system is contingent on its environmental

125

uncertainties. The next paragraph opens with a discussion on control activities.

Control activities as defined by CEIOPS (2003) are measures that help to ensure that necessary actions are taken to address risks to the achievement of an entity's objectives. The dimension had three sub-dimensions. Sub-dimension one measured how the companies selected and developed mitigation measures of risks to an acceptable level. The second sub-dimension of control activities measured the extent to which the companies selected and developed general control measures over technology. Sub-dimension three, under control activities, measured the extent to which the companies deployed control measures through policies and procedures which established what was expected and mechanisms that ensured those policies and procedures were adhered to.

The responses on control activities were elicited through self-assessment questionnaires administered to respondents from the companies. All the indicators for control activities as already explained under objective one were aggregated into a single score and the Kruskal-Wallis test was performed. The study assumed that there are no significant differences in the mean scores of control activities among the four categories of insurance companies. Table 12 depicts the descriptive statistics or the mean rank scores

126

Table 12-*Mean Ranks for Control Activities*

Categories of companies	N	Mean Rank
Life	17	31.06
Non-life	26	56.71
Brokerage	43	48.07
Others	5	23.30

Source: Field survey, Amissah (2015)

The results of the mean ranks for the four categories of companies in the Ghanaian insurance industry suggested that non-life insurance companies performed well in terms of their control activities score than the other insurance companies. Thus, the non-life insurance companies obtained the highest control activities mean score while the other insurance group obtained the lowest control activities mean score. This means that the non-life insurance companies paid extra attention to their control activities than the other insurance companies. The finding is supported by the control activities mean scores obtained by non-life and other insurance companies (Table 12).

Table 13-*Test Statistics Results for Control Activities*

Chi-Square	13.415
Df	3
Asymp Sig	.003

Source: Field survey, Amissah (2015)

The findings from Table 13, indicate that there is a statistically significant difference in the control activities scores among the four categories of insurance companies (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), $\chi^2 (3, n = 91) = 13.415$, $p = 0.003$. This is because the

127

significant level was .003. This figure is less than the conventional alpha level of 0.05, suggesting that there is a statistically significant difference in the control activity score among the four categories of companies in the Ghanaian insurance industry. As a result of the overall statistically significant difference obtained for control activities, the study proceeded on conducting the Post-hoc test.

The Post-hoc tests were conducted to evaluate the differences among the groups. The findings from the Mann-Witney U tests indicated a statistically significant difference between the control activities scores of life insurance companies (M=14.00, n =17$)$ and non-life insurance companies (M = 27.23, n = 26), U = 85, z = -3.39, p = 0.00, r = 0.52. This is evidenced by a significant value of 0.00 which is less than the alpha value of 0.02. The resulting r value of .52 indicates a large effect. The results may be due to the differences in the sizes of life and non-life insurance companies. This findings support Chenell's (2003) assertion that the nature of control systems depends on the size of the organisation. The subsequent paragraph opens with a discussion on information and communication.

Information and communication systems denote methods and channels that organizations adopt to convey essential information, directives and policies (INTOSAI, 2004; Shim, 2011). Of importance is the fact that, for communication systems to be effective, information must flow up, down, and across the organization by means of identifying, capturing and passing on pertinent information in a timely manner for responsible parties to take appropriate action.

128

Information and communication had three sub-dimensions. The first sub-dimension under information and communication measured the extent to which the companies generated quality information to support the functioning of other components of internal control. The second sub-dimension under the information and communication captured the extent to which the companies internally communicated information, including objectives and responsibilities that supported the functioning of other components of ICS. The third sub-dimension measured the extent to which the companies communicated with external parties regarding matters that affected the functioning of other components of ICS.

The data on the dimension were obtained through self-assessment questionnaires administered to respondents from the companies. By virtue of the nature of objective two, all the indicators of information and communication were aggregated into a single score. The composite dimension was then used to test for the differences using Kruskal Wallis test. The Kruskal Wallis test had information and communication as the dependent variable and the four categories as the factor. Before performing the test, all assumptions underlying the use of the procedure were observed. The analysis involved the testing of hypothesis which reads: ''There are no significant differences in the information and communication systems across the four categories of companies in the industry''.

Table14-*Mean Ranks for Information and Communication*

Categories of companies	N	Mean Rank
Life	17	51.15
Non-life	26	46.29
Brokerage	43	46.21
Other	5	25.20

Source: Field survey, Amissah (2015)

From Table 14, the results indicate that life insurance companies obtained the highest mean score 51.15 while other insurance companies namely oil and gas, loss adjuster, reinsurance companies had the lowest mean score 25.20. This means that the life insurance companies performed better in terms of their information and communication mean score than the other insurance companies in the insurance industry. The finding may well mean that life insurance companies had stronger communication systems. Following, is Table 15, the test statistics results for information and communication.

Table 15-*Test Statistics Results for Information and Communication*

Chi-Square	3.774
Df	3
Asymp Sig	.287

Source: Field survey, Amissah (2015)

Further, the Kruskal Wallis test revealed a statistically insignificant difference in the information and communication scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 3.774, p

= 0.287 (Table 15). The statistically insignificant difference exists because the significant value of 0.287 is greater than the conventional alpha level of 0.05. The findings suggest that life, non-life, brokerage and other insurance companies had similar information and communication systems. The finding could be due to similar business environment. The result supports the view that an organisation's contingency characteristics determine the nature of control systems (Donaldson, 2006). The subsequent paragraph discusses monitoring.

According to Treba (2003), a crucial aspect of any complete system of internal controls is regularly monitoring how effective the internal controls are, in order to find out whether or not they are properly designed and also functioning. This denotes that monitoring and evaluation is critical to the functioning of every control system.

In the study, monitoring and evaluation was measured by the extent to which the companies developed and performed separate evaluations to ascertain the functioning of the components of ICS. Also, the dimension captured monitoring as evidenced by the extent to which the companies evaluated and communicated ICS deficiencies on a timely manner to those responsible for taking corrective action.

Responses from the companies' respondents regarding the dimension were elicited through the use of self-assessment questionnaires. Afterwards, indicators on the dimension were aggregated into a single score for the purpose of conducting the analysis. The result from the mean ranks is presented in Table 16.

Table 16-*Mean Ranks for Monitoring*

Categories of companies	N	Mean Rank
Life	17	50.91
Non-life	26	44.75
Brokerage	43	47.49
Others	5	23.00

Source: Field survey, Amissah (2015)

An evaluation of Table 16 indicates that life insurance companies obtained the highest mean score 50.91 while other insurance companies obtained the lowest mean score 23.00. This reveals that the respondents from the companies agree that life insurance companies performed better in terms of their monitoring score than non-life, brokerage and other insurance companies. The high mean score obtained by life insurance companies may imply that, life insurance companies paid more attention to their monitoring mechanisms than the rest of the companies in the insurance industry. The ensuing Table presents the result of the Test Statistics.

Table 17-*Test Statistics Results for Monitoring*

Chi-Square	4.641
Df	3
Asymp Sig	.200

Source: Field survey, Amissah (2015)

Given the Test Statistics results from Table 17, the Kruskal-Wallis test indicate a statistically insignificant difference in the monitoring and evaluation scores across the four categories of companies in the Ghanaian insurance industry (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others,

132

N = 5), χ^2 (3, n = 91) = 4.641, p = 0.200. This is because in the output presented above, the significant level was .200. Thus, the p value is greater than the conventional level of alpha (0.05). Therefore, these results suggest there is statistically no significant difference in the monitoring and evaluation scores across the four categories of insurance companies in the Ghanaian insurance industry. These findings could be ascribed to similar monitoring and evaluation mechanisms put in place by the four categories of companies in the insurance industry.

Upon separately analysing the differences among the five dimensions of internal control systems across the four categories of insurance companies, the study went further to analyse the differences in the composite dimension across the five categories of companies by aggregating the scores of each of the five dimensions into a single score. Thereafter, the Kruskal-Wallis test was conducted. Prior to conducting the test, the study assumed that there is no significant difference in the internal control score across the four categories of companies in the industry. The output from the mean ranks is presented in the Table 18.

Table 18-*Mean Ranks for Internal Control Systems*

Categories of companies	N	Mean Rank
Life	17	46.44
Non-life	26	45.29
Brokerage	43	49.55
Others	5	17.70

Source: Field survey, Amissah (2015)

Similar to the results on control environment, an inspection of the mean ranks for the groups suggests that the brokerage firms had the highest internal control scores with other insurance companies reporting the lowest mean score. This connotes that on the average, brokerage insurance companies performed better in their internal control systems than life, non-life and other insurance companies. Table 19 presents the Test Statistics results from the Kruskal-Wallis test.

Table 19-*Test Statistics Results for Internal Control Systems*

Chi-Square	6.542
Df	3
Asymp Sig	.088

Source: Field survey, Amissah (2015)

As evidenced from the Kruskal Wallis test (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 6.542, p = 0.088, internal control scores across the four categories revealed no statistically significant difference (Table 19). The reason is that the significant value obtained from the Test Statistics results was .088. This figure is greater than the conventional alpha level of 0.05, suggesting that there is a statistically insignificant difference in the internal control scores among the four categories of companies in the Ghanaian insurance industry. Thus the hypothesis that there is no significant difference in the internal control systems across the four categories is accepted.

The above result means that the companies in the industry instituted similar internal control mechanism. The finding may be ascribed to similar strategies adopted by the four categories of companies in the insurance

industry. The result is in supports of Donaldson's (2006) view as cited in Jokipii (2009) that the structure of control system depends on the contingency characteristics such as the strategy , size and risk profile.

After, evaluating the differences in each of the five dimensions as well as the composite dimension of internal control systems, the study proceeded on the effect of internal control system on the performance of companies in the Ghanaian insurance industry.

Effect of Internal Control Systems on Performance

Objective three sought to examine the effect on ICS on performance of companies in the Ghanaian insurance industry. As expounded by COSO (2013), internal control systems are made up of five dimensions namely control environment, risk assessment, control activities information and communication, and monitoring. The indicators for each of the five dimensions were separately aggregated. Afterwards, the five dimensions were used as the independent variables. The dependent variable performance captured return on asset, liquidity, customer base, quality of service, flexibility, resource utilization and innovation as indicators. All the indicators under performance was also aggregated into a single score and used as the dependent variable. Subsequently, the independents variables were regressed on the dependent variable.

As submitted by Tabachnick and Fiddel (2013), the ordinary least square multiple regression technique was used in analyzing the objective for two major reasons. Firstly, the technique permits the simultaneous entry of different predictor variables into a model, enabling the basing of analyses, findings and conclusions on a single scenario (Pallant, 2011). Secondly, the

135

results generated by this technique, indicate the separate contribution of each predictor variable to the total variance in a dependent variable (Dampson & Ofori, 2011).

The model comprised control environment, risk assessment, control activities, information and communication and monitoring and evaluation as the explanatory variables and performance as the dependent variable. Assessment was based on the beta (β) values, partial correlation values (r), coefficient of determination (R^2) and the corresponding significant levels (p-values). For the purpose of the study, the conventional alpha level of 0.05 was adopted.

Once the tests of assumptions were passed in chapter three, the study went ahead to look at the effect of ICS on the performance of companies in the insurance industry in Ghana. The findings from the regression analysis on the independent variables including, control environment, risk assessment, control activities, information and communication and monitoring are presented in Table 20.

Table 20-*Standardized Multiple Regression Analysis Summary for Internal Control Dimensions Predicting Performance.*

Variable	B	Beta	r	t-stats	P-Value
Constant	.735			.657	.513
CE	.099	.222	.316	3.075	.003**
RA	.159	.315	.395	3.960	.000***
CA	.003	.004	.007	.064	.949
IC	.229	.311	.382	3.813	.000***
MC	.271	.173	.285	2.714	.007**

*Sig<0.05,   **Sig<0.01,   ***Sig<0.001

$R^2 = .878$; F (5, 85) = 122.668, p < .000

Source: Field survey, Amissah (2015)

As submitted by Pallant (2011), the R-Square shows the amount of variance in the dependent variable, performance that is explained by the model which includes the variables control environment, risk assessment, control activities, information and communication, and monitoring. In this study, the R-Square value of .878 implies that the specified model explains 87.8 percent of the variance in performance. The R-Square according to Hair et al. (2009) is also an indication of goodness of fit of the data. Generally, the higher the R-Square the better the fit. Therefore, the R-Square of .878 implies that the model specified better fits the data. The p-value (0.000) of the coefficient (R) of the regression model is statistically significant at 1% level of significance.

The implication as submitted by Tabachnick and Fidell (2013) is that the independent variables, when combined, significantly predict or explain the dependent variable, performance. Therefore, the null hypothesis that the independent variables when combined do not significantly explain the dependent variable is rejected. This result confirms the conceptual framework and the findings of Muraletheran (2011). Muraletheran investigated the impact of internal controls on financial performance of organisations in Jaffina district, Sri Lanka. The study found that internal control is statistically significant in predicting performance.

Table 20 depicts that some of the internal control variables contribute to the prediction of the performance. The statistics of the standardised betas for the internal control variables are as follows: control environment (.222), risk assessment (.315), information and communication (.311), control activities (.004) and monitoring (.173). The statistics shows that risk assessment had the largest standardised beta while control activities had the

137

smallest standardised beta. It implies that risk assessment makes the strongest unique contribution to explaining performance, when the variance explained by all other variables in the model is controlled. Also, control activities make the lowest unique contribution to explaining the dependent variable-performance, when the variance explained by all other variables in the model is controlled.

Regarding the partial correlation values in Table 20, risk assessment was the dimension most associated with performance (r = .395), although moderate. Information and communication (r =.382) and control environment (.316) were also moderately associated with performance. The implication was that, companies that maintained effective control environment, communication channels and risk assessment procedures were on the average, likely to perform. The association with performance were weak for monitoring (r = .285) and Control activities (r = .007), albeit very weak for control activities. This implied that there is a positive association between ICS and performance of insurance companies. The finding is consistent to the result of Mawanda (2008) who found that ICS positively influence performance in an institution of higher learning, Uganda.

With respect to control environment, the variable had a positive unstandardised coefficient and it was statistically significant at 1% level of significance. This is because the p-value of control environment (0.003) was lesser than the alpha value (0.01). Therefore, the study found that control environment significantly influences the performance of companies in the insurance industry in Ghana. The finding is consistent with that of Ndugu

138

(2013) who also found that control environment significantly impact on revenue generation in the University of Nairobi Enterprise and Services.

The part correlation coefficient of control environment is .116. When this value is squared, it provides an indication of the contribution made by control environment to the total R-square. A square of .116 is 0.013456 indicating that control environment uniquely explains about 1.35 percent of the variance in performance. The positive coefficient of control environment means that as control environment in an insurance company improves, the performance of that particular insurance company also improves. Similarly, as control environment in an insurance company deteriorates, performance in that insurance company also deteriorates. The result obtained for control environment corroborates with the conceptual framework and the findings of Noel (2010), who found that the control environment is among one of the internal control variables that significantly explain performance-levels.

Regarding risk assessment, the variable had a positive unstandardised beta coefficient of .315 and it was statistically significant at 1% level of significance. The reason is that the p-value of risk assessment (0.000) is lesser than the alpha value (0.01). Therefore, the study found that risk assessment is one of the internal control variables that significantly influence the performance of companies in the insurance industry in Ghana. This confirmed the model in the conceptual framework and the results of Njeri (2014) that risk assessment explains variations in the performance of manufacturing firms in Kenya.

From the results, the part correlation coefficient of risk assessment is .150. A square of .150 is 0.0225 indicating that risk assessment uniquely

explains about 2.25 percent of the variance in performance. The positive coefficient of risk assessment means that the more an insurance company performs risk assessment activities the more it is probable for that insurance company to improve its performance.

The result obtained for risk assessment is consistent with the findings of Siayor (2010). This author conducted a study to find out how the internal control system and risk management affected the financial performance of DnB NOR ASA, a Norwegian financial services group. That study discovered that a strong internal control and risk management systems improved DnB NOR ASA profitability and performance as a whole.

With respect to control activities, the variable had a postive unstandardised coefficient and it was statistically insignificant at 5% level of significance. The reason is that the p-value of control activities (0.949) was greater than the alpha value (0.05). Hence, the study found that control activities have no significant effect on the performance of companies in the insurance industry in Ghana. This may be due to overlap with other independent variables in the model (Pallant, 2011). The results is consistent with the conceptual framework and support the findings of Ndugu (2013), who found that control activities have statistically insignificant effect on performance of University of Nairobi Enterprise and Service Limited.

Another covariates that was included in the regression model to predict performance was information and communication. From the result, information and communication had a positive unstandardised beta coefficient and it was statistically significant at 0.01 alpha level. The reason is that the p-value of information and communication (0.000) is lesser than the alpha value

(0.01). Hence, the study found that information and communication has significant effect on the performance of companies in the insurance industry in Ghana. The result is in support of the conceptual framework in chapter two. The Part correlation coefficient of information and communication is .144. When this figure is squared it uniquely explains 2.07 percent of the variance in performance.

The result obtained for information and communication is inconsistent with the findings of Muraleetheran (2011). This author evaluated the impact of internal control on financial performance of organisations in Jaffna District. The study discovered that information and communication has no significant effect on performance of organisations in Jaffna District.

As illustrated in the conceptual framework and evidenced from the results, monitoring had a positive unstandardised coefficient and it was statistically significant at 1% level of significance. This is because the p-value of monitoring (0.007) is lesser than the alpha value (0.05). Therefore, the study found that monitoring significantly influences the performance of companies in the insurance industry. Monitoring obtained a part correlation coefficient .104 indicating that, monitoring uniquely explains about 1.08 percent of the variance in performance.

From the above discussions, it is noticed that the total R-square value of .878 or 87.8 per cent for the model specified in this study does not equal all the squared part correlation values added up. The reason is that the part correlation values represent only the unique contribution of each independent variable, with any overlap or shared variance removed or partialled out (Dampson & Ofori, 2011). On the other hand, the total R-Square value

141

includes the unique variance explained by each variable and also that shared (Tabachnick & Fidell, 2013). For this study, there was a reasonably high correlation between the independent variables with the lowest coefficient being .693. Hence, there is a lot of shared variance or interaction effect that is statistically removed when all the independent variables are included in the model.

The positive coefficient of monitoring means that an increase in monitoring activities as represented by on-going monitoring, separate evaluation or periodic monitoring and reporting deficiencies in a company in the insurance industry improves the performance of that particular company in the industry. The result obtained for monitoring corroborates with the findings of Noel (2010) who found monitoring as an internal control variable that has significant positive impact on liquidity, a proxy for performance.

Chapter Summary

Chapter four has analysed, presented and discussed the results on the condition of internal control systems and performance. This chapter has also assessed whether significant differences exist in the internal control systems of the various categories of companies in the industry using Kruskal-Wallis. The effect of internal control system variables on performance of companies in the Ghanaian insurance industry has also been examined. Equally, the relationship of internal control systems on performance has been assessed. The next chapter present a summary of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The final chapter of this study begins with a summary of the study objectives, the methodology and data analyses techniques. Following the objectives, methodology and analyses is a summary of the key findings relating to each objective and the conclusions drawn from each of them. Next, the specific recommendations, stemming from the findings and conclusions relevant for consideration by the insurance industry, are then made. The chapter ends with some suggestions for further research.

Summary

The main purpose of this study was to assess the effect of ICS on the performance of companies in the Ghanaian insurance industry. The study sought firstly to assess the conditions of ICS and performance of companies in the insurance industry. The differences in ICS variables were considered as objective two. Objective three assessed the effect of ICS on the performance of companies in the Ghanaian insurance industry. One question and two hypotheses were employed to achieve these objectives.

Based on the population of 113 companies in the insurance industry, a sample size of 91 companies was drawn. Sample sizes for the various categories of companies were then calculated using simple proportions. Specifically, simple random and purposive samplings were then used to select companies from the seven stratums for inclusion in the study. After the pre-test, questionnaires adopted from DEO and Fitzgerald and Moon respectively were tested for reliability. After reliability testing the questionnaires were

143

administered to the companies' respondents. The items on the instrument captured characteristics of the companies, ICS and performance.

Data obtained were grouped into four categories and analysed quantitatively using descriptive statistics including frequencies, means, median and percentages. Analyses of the differences in internal control systems were done with KrusKal-Wallis. Also, analyses on the effect of internal controls on performance were done using ordinary least square regression. Statistical Product for Service Solutions version 21 (SPSS 21.0) was utilized for the purpose of analysing the data. A summary of the key findings of the study follows.

The first part of objective one sought to assess the condition of internal control among the four categories of companies in the industry. The main issues that came to light were:

1. The study revealed strong conditions of CE among life insurance, non-life insurance and brokerage insurance companies. However, brokerage insurance companies had the strongest rating (median = 3.37; skewness = -1.38; mean = 3.70 standard deviation = .83) among the three categories. The other insurance companies recorded a weak CE (median = 3.26; skewness = -.24; mean = 2.70; standard deviation = 1.17).

2. Even though the conditions of risk assessment among non-life insurance, life insurance and brokerage firms were strong, non-life insurance companies had the strongest risk assessment score (median = 3.91; skewness =- .05; mean = 3.78; standard deviation = .48). Similar to the condition of CE, other insurance companies reported weak risk

144

assessment condition (median = 2.83; skewness = .01; mean = 2.58; standard deviation = 1.17).

3. The study revealed that the conditions of control activities were strong for non-life, life and brokerage insurance companies. Nonetheless, non-life insurance companies had the strongest control activities with a median value of 4.20 and an associated skewness figure of -.85 (mean = 4.05; standard deviation = .46). Other insurance companies had a weak condition for risk assessment (median = 3.00; skewness = .01; mean = 2.58; standard deviation = 1.22).

4. Non-life, life and brokerage insurance companies attained strong condition on their information and communication dimension. However, the condition was strongest among the non-life insurance companies (median = 3.72; skewness = -.22; mean = 3.76; standard deviation = .44). Other insurance companies however reported weak condition of information and communication system (median = 3.22; skewness = -.27; mean = 2.75; standard deviation = 1.26).

5. The condition reported for monitoring was strong for life insurance, non-life insurance and brokerage insurance firms. Life insurance and non-life insurance companies had the strongest monitoring score. Life insurance had a median score of 4.00 with an associated skewness of -1.78; mean = 3.64; standard deviation = .77), while non-life insurance companies obtained a median value of 3.60 with an associated skewness -.03; mean = 3.64; standard deviation = .46). Other insurance companies scored weak condition of monitoring (median = 2.80; skewness .00 (mean = 2.56; standard deviation = 1.27).

145

6. The overall condition of internal control systems per category of insurance companies in Ghana was similar to that of the individual components. Non- life insurance companies had the strongest ICS (median = 3.96; skewness = -.99; mean = 3.64; standard deviation = .84). Other insurance companies, however, obtained a low rating with a median score of 3.21 and an associated skewness of -.29 (mean = 2.66; standard deviation = .84).

The second part of objective one sought to assess the condition of performance among the four categories of companies in the industry and the main issues that came to light were:

1. Of the four categories of companies in the industry, life, non-life and brokerage firms scored high on their financial performance measures for the period under investigation. However, brokerage firms obtained the highest score (median = 4.00; skewness = -1.25; mean = 3.88; standard deviation = -93). The other insurance companies scored low on their financial performance measures (median = 3.00; skewness = -.36 (mean = 2.60; standard deviation = 1.29).

2. Even though non-financial performance was above the cut-off point for life, non-life and brokerage firms, life insurance scored the highest (median = 3.80; skewness = -1.01; standard deviation = 1.05). Other insurance companies however remained the sole category with low non-financial performance (median = 2.80; skewness = .24; mean = 2.60; standard deviation = 2.80).

The main findings for the differences in ICS per category of companies were as follows:

1. Statistically, insignificant difference existed in the control environment scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 4.140, p = .247.

2. For risk assessment, statistically significant differences existed among the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3 n = 91) = 9.415, p = .024. The statistical significant difference was between non-life insurance companies (*M*= 29.15, n = 26) and brokerage insurance companies (*M* = 38.53, n = 43) *U* = 89, z = -3.36, p = .02, r =.40.

3. The study revealed a statistically significant difference among the control activities scores across the four categories of insurance companies (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 13.415, p = 0.003. The follow-up tests revealed significant difference between the control activities scores of life insurance companies (*M*=14.00, n = 17) and non-life insurance companies (*M* = 27.23, n =26), *U* = 19, z = -3.39, p = 0.00, r = 0.52.

4. The findings revealed a statistically insignificant difference in the information and communication scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-

147

life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 3.774, p = 0.287.

5. The results of the study revealed a statistically insignificant difference in the monitoring scores across the four categories of companies in the Ghanaian insurance industry. (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 4.641, p = 0.200.

6. For internal control system, the results showed that there was no statistically significant difference in the internal control scores across the four categories of insurance companies used in the study (life insurance, N = 17: Non-life, N = 26: Brokerage, N = 43: Others, N = 5), χ^2 (3, n = 91) = 6.542, p = 0.088.

The main findings of the effect of ICS on performance were as follows:

1. ICS had a significant effect on the level of performance (R^2 = 878; Sig. = 0.000) at 1 % significance level.

2. Risk assessment made the strongest unique contribution to explaining performance.

3. Control activities made the lowest unique contribution to explaining performance. It was statistically insignificant in explaining performance.

4. Control environment, risk assessment, control activities, information and communication, and monitoring had a positive association with performance.

5. Internal control had a positive association with performance and was statistically significant in explaining performance.

Conclusions

The following conclusions are drawn based on the findings from the study. For objective one, the condition of ICS for the companies in the insurance industry in Ghana was strong. The life, non-life and brokerage companies generally had strong levels of or paid attention to their CE, RA, CA, IC and MC. This reflected in their overall performances. However, other categories of companies had weaker ICS. Concerning the condition of performance, life, non-life and brokerage insurance companies obtained high levels of performance. This is as a result of strong systems of CE, RA, CA, IC and MC activities put in place by the companies. Other insurance companies however recorded low levels on their overall performance.

Regarding objective two, the results from the study conclude that life, non-life, brokerage, lost adjuster, reinsurance, and oil and gas companies in the Ghanaian insurance industry had analogous CE, IC and MC. Non-life insurance companies however performed better in their risk assessment procedures than loss adjuster, reinsurance, and oil and gas companies in the Ghanaian insurance industry. Furthermore, the study concludes that non-life insurance companies generally performed better in their control activities than life insurance companies.

With respect to the third objective, the study concludes that control environment, risk assessment, control activities, information and communication and monitoring of controls positively affected the performance of companies in the Ghanaian insurance industry. This implies that improved control environment, risk assessment, control activities, information and communication and monitoring leads to improved performance. However,

149

control activities negatively affected the performance of the companies in the industry. This means that an improved control activities leads to low levels of performance.

Overall, internal control systems positively affected the performance of companies in the Ghanaian insurance industry. The implication is that an improved internal control systems lead to high levels of performance among the companies in the insurance industry.

Recommendations

Based on the key findings and conclusions, the oil and gas, loss adjuster and reinsurance companies in the Ghanaian insurance industry are advised to:

1. Strengthen their control environment through mechanisms such as a commitment to integrity, ethical values and competence. This will make effective the control environment and help improve performance levels.

2. Strengthen their information and communication systems by generating quality information to support the other components of internal control. This will render the other components of internal controls effective and improve performance.

Based on the key findings and conclusions, life, non-life and brokerage insurance companies in the Ghanaian insurance industry are advised to:

1. Maintain their level of internal control systems through effective monitoring and separate evaluations of their systems of control. This will help enhance or maintain the current level of their internal control systems and performance.

150

Based on the key findings and conclusions, non-life and brokerage insurance companies in the Ghanaian insurance industry are advised to:

1. Adopt different risk assessment procedures through the use of risk identification measures that fit their contingency characteristics. This will help improve the effectiveness of their risk assessment procedures and boost performance levels.

Based on the key findings and conclusions, life and non-life insurance companies in the Ghanaian insurance industry are advised to:

1. Espouse dissimilar control activities through the selection and implementation of information system controls that suit their organisational context. This will boost the effectiveness of ICS and improve performance levels.

Life, non-life, brokerage, oil and gas, loss adjuster and reinsurance insurance firms in the Ghanaian insurance industry are advised to:

1. Maintain identical control environment by adopting similar operating style. This is because the companies have identical control environment.

2. Pay attention to maintaining similar information and communication systems. This can be done through adopting identical reporting lines of authority. This is because the companies have identical information and communication systems.

3. Identify, capture and communicate salient information in a form and time frame that will enable employees to carry out their responsibilities. This will enhance the effectiveness of communication

151

channels and improve performance of companies in the insurance industry in Ghana.

Suggestions for further research

It is suggested that further research be carried out to examine the effect of performance on internal control systems in the Ghanaian insurance industry. This will add to the body of knowledge and provide in-depth understanding of the roles the concepts play in the insurance industry. In addition, other researchers should look at the topic using logistic regression technique.

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APPENDICES

APPENDIX A

Categories of companies in the insurance industry in Ghana.

Category	Description
Non – life	Financial intermediary that deals in insurance contract that do not come under the ambit of life insurance business.
Life	Financial intermediary that shares the financial risk of untimely death of its policy holder.
Reinsurance	Companies that provides financial protection to insurance companies.
Brokerage	Companies that sells, solicits or negotiates insurance for compensation.
Reinsurance Broker	Companies that work for the original insurer.
Loss Adjuster	Independent claims specialists who assist in the fair and just settlement of claims, including complex or contentious claims on behalf of insurance companies.
Oil and Gas	A company whose business is to insure businesses in the oil sector

Source: National Insurance Commission, 2013

KREJCIE AND MORGAN (1970) - TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size, and "S" is sample size.

UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND FINANCE

QUESTIONNAIRE ON EFFECT OF INTERNAL CONTROL
SYSTEMS ON PERFORMANCE OF COMPANIES IN THE
INSURANCE INDUSTRY IN GHANA

Dear Sir / Madam

I am Master of Commerce student in the University of Cape Coast with specialization in Accounting. In partial fulfilment for the award of my degree, I am conducting a study on the effect of internal control system on performance of companies in the insurance industry in Ghana. In order to sufficiently address the specific objectives of the study, questionnaire administration has become quite relevant. Your highly esteemed company has been selected in soliciting for the data. I would therefore be pleased if your company could respond to this questionnaire based on the internal control systems and performance indicators in this company. Your responses will be used solely for this academic purpose. I also assure you that the responses from your company will also be treated with utmost confidentiality.

Thank you.

SECTION A: BUSINESS INFORMATION
Please indicate your response by ticking (√) in the applicable box for each question.

1. What is the category of your company?

   ☐ Life ☐ Non-life ☐ Brokerage

   ☐ Reinsurance brokerage ☐ lost adjuster ☐ Reinsurance

   ☐ Oil and Gas

2. Which of the following best describes the legal form of your business?

☐ Public Company ☐ Partnership ☐ Private Company

SECTION B: INTERNAL CONTROL

The following statements will be helpful in finding the extent to which your entity design and implement internal control system.

*Please indicate your agreement, disagreement or otherwise with each of the statements by **ticking** the appropriate box.*

Control environment	SA				WA
	5	4	3	2	1
Principle 1. The organization demonstrates a commitment to integrity and ethical values.					
1. The management of my entity and the board of director's expectations translate into an organizational statement of beliefs, values, and standards of conduct that the staff exhibit daily.					
2. Standards of conduct are communicated and reinforced to all levels of my entity and to service providers.					
3. Processes are in place to evaluate the performance of staff and outsourced service providers (if any) against expected standards of conduct.					
Principle 2. The board of directors demonstrates independence from management and exercises oversight of the development and performance of internal control.					
4. The Board of Directors define, maintain, and periodically evaluate the skills and expertise needed among its members to enable them to question and scrutinize management's and present alternate views.					
5. The committee that oversees internal control activities over financial reporting and the integrity and transparency of					

176

	those reports complete these tasks on time						
6.	The board establishes the expectations and evaluates the performance of the CEO or equivalent role.						
Principle 3. Management establishes, with board oversight, structures, reporting lines, and appropriate authorities and responsibilities in the pursuit of objectives.							
7.	The organizational structure is appropriate for the size and complexity of my company.						
8.	Specific lines of authority and responsibility are established to ensure compliance with the laws and regulations governing the insurance industry in Ghana.						
9.	The management/board of my company understands the importance of internal controls, including the division of responsibility.						
Principle 4. The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.							
10.	Regular employee evaluations are documented and shared with employees.						
11.	My company continuously provides mentoring and training opportunities needed to attract, develop, and retain sufficient and competent personnel.						
12.	My company checks credentials, references, and past work experience of potential new employees.						
Principle 5. The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.							
13.	My company holds periodic training to ensure employees are aware of their duties pertaining to internal control. Training needs are continuously re-evaluated.						
14.	Controls and documentation are in place to substantiate that						

177

		SA				WA
							employees have received periodic training and are aware of their duties pertaining to internal controls.					
15.	Disciplinary actions are documented and available for employee review. Where applicable, my company has a documented corrective action program/coaching plan for employees facing disciplinary actions.					

Risk assessment		SA				WA
		5	4	3	2	1
Principle 6. The organization specifies with sufficient clarity to enable the identification and assessment of risks relating to objectives.						
16.	My company specifies objectives with sufficient clarity enabling the identification and assessment of risks that threaten the achievement of those objectives.					
17.	Management uses operational objectives as a basis for allocating the resources needed to attain desired operational and financial performance.					
18.	My company sets entity-wide internal controls and assesses the risks that those controls will not prevent material misstatements, errors, or omissions in the financial statements. Risk acceptance or avoidance is limited to instances where identified risks would not individually or in aggregate result in material misstatements, errors, or omissions.					
Principle 7. The organization identifies risks to the achievement of its objectives across the entity and analyses risks as a basis for determining how the risks should be managed.						
19.	Management ensures that risk identification considers both					

178

	internal and external factors and their impact on the achievement of objectives.					
20.	The company adequately and effectively manages risks to the organization and has designed internal controls that mitigate the identified risks.					
21.	My company develops performance indicators for key objectives and monitors the status of the indicators.					
Principle 8. The organization considers the potential for fraud in assessing risks to the achievement of objectives.						
22.	My company periodically performs an assessment of its exposure to fraudulent activity and how the operations could be impacted.					
23.	My company periodically performs an assessment of each of its operating locations for potential exposure to fraudulent activity and how the operations could be impacted.					
24.	My company's assessment of fraud risks considers opportunities for unauthorized acquisition, use and disposal of assets, altering the reporting records, or committing other inappropriate acts.					
Principle 9. The organization identifies and assesses changes that could significantly impact the system of internal control.						
25.	The company has mechanisms in place to identify and react to risks presented by changes in government, regulatory, economic, operating, or other conditions that could affect the achievement of the objectives.					
26.	The most significant risks affecting my entity are always identified.					
27.	The most significant risks, identified above, have controls designed and implemented that mitigate risks associated with each.					

179

Control activities	SA				WA
	5	4	3	2	1
Principle 10. The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.					
28. Management determines which relevant business processes require control activities.					
29. Management considers control activities at various levels in the company.					
30. Management segregates incompatible duties, and where such segregation is not practical, management selects and develops alternative control activities.					
Principle 11. The organization selects and develops general control activities over technology to support the achievement of objectives.					
31. Management selects and develops control activities that are designed and implemented to restrict technology access rights to authorized users commensurate with their job responsibilities and to protect the entity's assets from external threats.					
32. Management selects and develops control activities over the acquisition, development, and maintenance of technology and its infrastructure to achieve management's objectives.					
33. The company has a process that requires regular back-up of computer files and testing of the back-up files to ensure proper functionality.					
Principle 12. The organization deploys control activities through policies that establish what is expected and in procedures that put policies into action.					
34. My company has policies and procedures addressing proper segregation of duties between the authorization, custody, and recordkeeping for the following tasks, if applicable: Cash, equipment, disbursements,					

Control activities		SA				WA
		5	4	3	2	1
	procurement, and payroll.					
35.	Management performs periodic review of policies and procedures to determine their continued relevance, and refreshes them when necessary.					
36.	The entity maintains policies and procedures to facilitate the recording and accounting of transactions in compliance with regulations.					

Information and communication		SA				WA
		5	4	3	2	1
Principle 13. The organization obtains or generates and uses relevant, quality information to support the functioning of other components of internal control.						
37.	Rules or regulations are reviewed with one or more of the following: governing board, audit, finance or other committee.					
38.	The company maintains and follows procedures for record filing, retention, and disposal of accounting records and supporting documentation in accordance with applicable regulations.					
39.	The company's accounting system provides for separate identification of each transaction.					
Principle 14. The organization internally communicates information, including objectives and responsibilities for internal control, necessary to support the functioning of other components of internal control.						
40.	Communication exists between management and the board of directors so that both have information needed to fulfill their roles with respect to the company's objectives.					
41.	The Code of Conduct, or other policies, expressly prohibit override of internal controls by management.					

181

Information and communication	SA				WA
	5	4	3	2	1
42. Management has a process for the development, approval and implementation of policy updates and communicates those updates to staff.					
Principle 15. The organization communicates with external parties regarding matters affecting the functioning of other components of internal control.					
43. The company has a whistle-blower policy for people to report suspected improprieties regarding errors in financial reporting, improper procurement transactions, improper use of equipment and misrepresentation or false statements.					
44. The company has processes in place to communicate relevant and timely information to external parties.					
45. The company has processes in place to communicate the results of reports provided by the external auditors and independent non-executive directors and executives of the National Insurance Commission.					

Monitoring	SA				WA
	5	4	3	2	1
Principle 16. The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.					
46. My entity periodically evaluates business processes such as cash management, budget to actual results, procurement, and contracting activities.					
47. The entity ensures compliance with period of availability requirements.					
48. The management of my entity periodically audits the brunches to determine whether policies and procedures are followed. a					

Monitoring		SA				WA
		5	4	3	2	1
Principle 17. The organization evaluates and communicates internal control deficiencies in a timely manner to those parties responsible for taking corrective action, including senior management and the board of directors, as appropriate.						
49.	The company periodically evaluates internal controls, tests for compliance with National Insurance Commissions requirements, and communicates the results of those company's board of directors.					
50.	The company monitors branches to ensure that funds provided are expended only for allowable activities and communicates same to the board of directors.					

183

SECTION D: FIRM PERFORMANCE

This section seeks to establish your personal assessment of your firm's

performance for the past year

Please assess the performance of your firm for the year 2014, indicating by

__ticking__ the box that corresponds with your assessment

Where:

Liquidity denotes: Quick ratio, Quality of service denotes: responsiveness

Flexibility denotes: delivery speed,

Resource Utilization denote: operating cost to operating income

Innovation denotes: Proportion of new services to old ones.

	Firm performance	*SA*				*WA*
		5	**4**	**3**	**2**	**1**
1	Our firms return on asset have increased.					
2	Our company's liquidity base have increased.					
3	The customer base of our entity have increased.					
4	Our service quality have improved.					
5	Our entity's responsiveness to clients' needs have improved.					
6	Resource utilization in our firm have improved.					
7	Proportion of new services to old ones have increased.					

184

UNIVERSITY OF CAPE COAST

COLLEGE HUMANITIES AND LEGAL STUDIES

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

4th May, 2015

Dear Sir/Madam,

INTRODUCTORY LETTER

The bearer of this letter, Mr. Anthony Amissah is an M.Com (Accounting) student of the School of Business, University of Cape Coast. He is writing his thesis on the topic, 'Effect of Internal Control Systems on Performance of Companies in the Insurance Industry in Ghana'.

We would be grateful if you could permit him to administer his questionnaire in your institution and also offer him necessary support he might need.

Thank you in anticipation of your co-operation.

Yours faithfully,

Signed

Siaw Frimpong, (PhD)

HEAD

APPENDIX E

Skewness values for variables

Variable	Skewness value
Control environment	-1.29
Risk assessment	-1.32
Control activities	-1.28
Information and communication	-1.17
Monitoring	-1.42
Performance	-1.09

Source: Field survey, Amissah (2015)

Multicollinearity Test

Variable	VIF	Tolerance
Control environment	3.64	0.275
Risk assessment	4.41	0.227
Control activities	3.26	0.307
Information and communication	4.64	0.215
Monitoring	2.77	0.361
Mean VIF	3.74	

Source: Field survey,Amissah (2005)
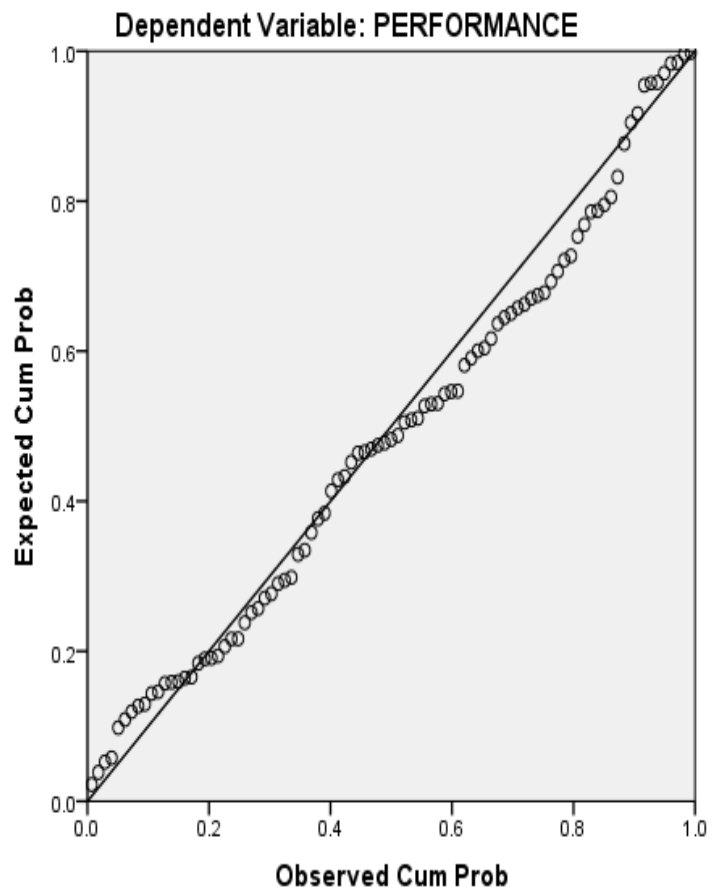
Correlation Coefficient of Independent Variables

	CE	RA	CA	IC	MC
CE					
RA	.81				
CA	.77	.76			
IC	.76	.83	.77		
MC	.69	.71	.69	.780	

Source: Field survey, Amissah (2015)

APPENDIX G

Test of Normality

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PERFORMANCE

188

APPENDIX H

Test of Outliers

Scatterplot
Dependent Variable: PERFORMANCE

189