UNIVERSITY OF CAPE COAST

EFFECTIVENESS OF OPERATIONAL RISK MANAGEMENT IN SELECTED BANKS IN GHANA

BY

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DECLARATION

Candidate's Declaration

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

Candidate's Name: ALEX EBEN NANA-COBBINAH

Signature …… Date:……..

Supervisor's Declaration

I hereby declare that the presentation of this dissertation was supervised in accordance with the guidelines on supervision of dissertation as laid down by University of Cape Coast

NAME: DR JOHN G. GATSI

Signature:……Date:…….

ABSTRACT

The purpose of the study was to assess the effectiveness of operational risk management in selected banks in Ghana (UT Bank Ltd, SG Ghana Ltd, Agriculture Development Bank Ltd and Cal Bank Ltd). The study sought to find out how effective Ghanaian Banks are managing operational risk since its inception in Ghana about a decade ago. The data was collected by the use of questioners and interview guide which help to analyzed and present results in percentage and frequency tables.

The study also revealed that the cardinal features such as operational risk identification, assessment, evaluation, and reporting and monitoring as prescribed by the regulator (BoG) were adhered to by the banks. The selected banks have also put in place effective measures, controls, procedures and systems to facilitate operational risk management. The study shown that the banks, as part of Basel Committee and Bank of Ghana regulations have complied with GHS 60 million minimum capital requirement, used sound best practice policy, provided sound operational Risk Management environment. The banks, in line with the regulator's requirement have provided seven percent equity requirement and eleven percent liquidity as prescribed by law.

It was recommended that the banks should periodically review their operational risk limitations and control strategies and adjust their operational risk profile accordingly using appropriate methodology which is in line with their overall risk appetite.

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DEDICATION

I wholeheartedly dedicate this work in honor of my mother, Rebecca Mensah (Nana Esi Akyere)

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LIST OF ABBREVIATIONS

BCBS	-	Basel Committee on Banking Supervisor
BoG	-	Bank of Ghana
BIS	-	Bank for International Settlement
BM	-	Branch Manager
BUM	-	Business Unit Manager
GM	-	General Manager
ICAP	-	Internal Capital Adequacy Process
ORT	-	Operational Risk Taxonomy
OR	-	Operational Risk
ORMD	-	Operational Risk Management Department
ORM	-	Operational Risk Management

CHAPTER ONE

INTROUDCTION

Background of the study

Financial institutions are exposed to several major risks, such as market, credit risk and operational risk and are required to put aside a capital buffer to primarily deal with operational risk and unexpected losses according to Basel Committee accord. The banking industry is an industry almost everyone uses. Today most of us save our money in a bank account, because the banking industry is an industry we trust. Collapse of a bank is something most of us have not even considered. The financial crisis of today gave effect all over the world. Many factors contributed to the rise of the crisis. Expansive monetary policy, flawed financial innovations and collapse of trading are factors that have been mentioned (Schwartz, 2009).

With the introduction of the Basel I, II and III accords recommendations and regulations in Ghana in the year 2007 a new capital requirement for financial institutions for the purpose of operational risk management was set under the Bank of Ghana regulations.

Operational risk is a very broad concept and includes everything, from bank robberies, unauthorized trading to terrorist attacks and natural disasters. In other words, it is everything except credit, systematic or financial risk, which arises from the operation of a company's business activities. On the other hand credit risk and market risk can be exploited to generate profit, while as operational risk is not used to generate profit.

However, operational risk is still managed to keep losses within a company's risk appetite.

The increased globalization and the progress in financial technology have moved the financial world into a more complex realm. Standard models clearly fail to capture the extreme events, as we have seen in the 2008 global financial crisis. In the recent past globalization and deregulation in financial markets, combined with increased sophistication in financial technology and products, large scale mergers and acquisitions as well as great use of outsourcing arrangements have introduced more complexities into the activities of banks and their risk profiles. These reasons underscore banks and supervisors' growing focus upon the identification, measurement and management of operational risk which has been major issue and concern for the banking industry.

The list of risks faced by banks today includes fraud, system failures, terrorism and employee compensation claims. These types of risk are generally classified under the term 'operational risk'. An operational risk, as the name suggests, is a risk arising from execution of an institution's business functions. It is a very broad concept which focuses on the risks arising from the people, systems and processes through which an institution operates. It also includes other categories such as fraud risks, legal risk, physical or environmental risks and image or reputational risk.

There are many different definitions of operational risk and many institutions have adopted their own definition which better reflects their area

of business. However, the Basel Committee on Banking Supervision (2006) defined operational risk as "The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events" Operational risk definition have been broadly divided into; those who say it is everything except market and credit risk and those who say it is the losses due to failures in operational process.

Some of the definitions extend operational risk to include all uncontrollable risk to the firm. Jameson (1998) reviewed operational risk definition and indicated that the definition evidently includes both controllable and uncontrollable causes, all ensuing event and losses, whether or not they related to a transaction. However, if there is no excess capital then the operational risk reduces to zero which is unrealistic and presumably not what the banks intended.

Statement of the Problem

Operational Risk is a broad concept that premier through the banking industry. In Ghana, per Bank of Ghana and Basel Committee regulations, all banks should implement and continuously manage the concept of operational risk. The regulation gained prominence in Ghana in the year 2007. The law stipulated among other things the measurement and calculation of capital requirement, how internal and external risk factors that result in operational loss can be managed. It is important to note, however that, since its inception, little assessment has been done to ascertain the effectiveness of the

operational risk management in banks in Ghana There has been poor management decisions, failed internal processes, human errors and failed systems which are key factors of operational risk issues and this has caused banks to perform abysmally. The inability to implement operational risk or manage operational risk by some banks may be due to a number of reasons. Hence the need to assess the effectiveness of operational risk practices of bank in Ghana.

For this reason the study sought to find out the effectiveness of operational risk management in selected banks in Ghana, such as UT Bank Ltd, SG Ghana Ltd, Agriculture Development Bank and Cal Bank Ltd.

Objective of the study

The main objective of the study was to assess the effectiveness of operational risk management practices of banks in Ghana. Specifically the study sought to:

1. Ascertain whether banks understand operational risk management.
2. Ascertain the independence of operational risk management and practiced in branches and unit levels of the selected banks.
3. Determine Regulatory Requirement of Operational Risk Management
4. Determine the Operational Risk Management Requirement in banks

Research Questions

Following from the objective of the study, the underlisted research questions were formulated:

1. Do banks understand operational risk management?
2. What is the nature of independence of operational risk management and practiced in branches and unit levels operational risk is practiced in branches and unit levels of selected banks?
3. What is the regulatory requirement of operational risk management in the selected banks?
4. What are Operational Risk Management Requirement in banks?

Significance of the study

The findings of the research will help to improve the operations of the banking industry; it will enable the industry to solve the operational losses and operational risk challenges facing them. The research will add up to the existing knowledge the existing knowledge in operational risk. The research will help to improve policy formulation and implementation in the banking industry and strengthen the existing controls, supervision, auditing measures and procedures in the industry.

Delimitation of the study

Out of the types of operational risk that modern financial institutions are exposed to, this study focuses on the management of operational risks..

The description has been generally accepted and recited, it includes all risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

There are multiple additional risk factors to the operational risk described above. Clearly excluded are risks of economic losses caused by poor strategic decisions (strategic risk) along with other risks considered to be the effects of operational risks such as reputational risk. The systemic risk of operating in a specific industry struck by a general downturn is also excluded from the definition of operational risk. For the purpose of the study, all included risk factors are being described along with general views on how they are to be managed. There are myriad of areas which the researcher could have dealt into but the study will be concentrated on operational risk management in the four banks

Limitation of the study

It would have been appropriate to have conducted the study in the entire operations of the banking industry, nevertheless, in anticipation of resource and time constraint, the proximity to the research areas, the study will be limited to four major commercial banks. The fear in the respondents to honestly provide the accurate circumstance as it exists in the banks in the area of the study. The respondents who are mostly the employees of these banks, the fear of losing their jobs may prevent them from giving accurate and unfavorable information about their bank.

In the same way the board of directors and the management team may also be of the view that disclosing sensitive and vital information about their bank may lead to more tax levy and unhealthy competition.

Organization of the Study

The whole dissertation will be presented in five chapters. Each chapter will contain a unique presentation adding up to an overall coherent presentation and arrangement. The chapters are as follows.

1. Chapter one: introduction
2. Chapter two: literature review
3. Chapter three: methodology
4. Chapter four: results and discussions
5. Chapter five: summary, conclusion and recommendation

Chapter One contains the introduction, definition and background of the study of operational risk management in the selected banks, followed by the statement of the problem which present the need for the topic of the dissertation. The chapter again presents the purpose of the study, research questions, significant of the study, delimitation and limitation of the study and organization of the study. Chapter Two presents a review of some existing, related and relevant literature on operational risk management. Chapter Three contains the methodology, the procedures used for collection and analysis of the dissertation discussions with my resource persons whiles chapter Four contains the presentation and analysis of the various discussions with my

resource persons and an overview of the operational risk management. Finally chapter Five presents a summary, conclusion and recommendations of the dissertation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter presents the literature review of the study. Operational risk management has assumed a strong working definition and wider scope in recent times in the banking industry, from various authorities, the academia, professional bodies and governmental theories regarding operational risk management.

A lot of literatures on operational risk do agree clearly that operational risk is about inadequate or failed internal processes, people and systems or from external event and has become a growing phenomenal in the banking industry which ought to be managed with all the seriousness. In this research finding the definition and scope with some selected literatures are influenced by the extent of research which would also enable the researcher to gather enough knowledge into the research area. Theories and studies relating to operational risk management are critically reviewed. The chapter has been grouped into four main headings. The theoretical review, empirical review, framework of Basel accords and the description of the selected banks.

Theoretical Review

In the financial industry the definition of risk depends on the context and the purpose for which one wishes to formulate the concept of risk (Chernobai, 2007). When applied to operational risk management practices,

risk is commonly understood as the potential of sustaining a loss (Bessis, 2010), risk is associated to a negative outcome only. According to (Chernobai, 2007), corporations active in the financial industry face four main types of risks:

1. Credit risk – the risk that a counterparty will not be able to fulfill its financial commitment
2. Market risk – the risk of an adverse price movement in the market.
3. Operational risk – the risk of loss resulting from inadequate or failed internal processes , people and systems or from external events (BCBS, 2001).
4. Other risks – residual risk group that captures risks such as strategic risk, political risk, etc.

Banks are considered to face the biggest risks in the first two risk groups (Chernobai, 2007; Bessis, 2010). However, the view of operational risk has been overruled by several researchers (Halperin, 2001; Blunden, 2003; Buchelt, & Unteregger, 2004; Cummins, 2006; Wei, 2006) and its emergence as a primary risk was officially recognized in 2006 with its inclusion in the Basel II framework (BCBS, 2006). As argued by Rao & Dev, (2006), in the past, everything other than credit or market risk was by default operational risk. Today, the definition of operational risk provided by the (BCBS) is much more sophisticated, i.e. the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events (BCBS, 2001). The definition is widely accepted, both by the

academia and practitioners. However, despite the general acceptance of the definition provided by the BCBS, most academic authors on operational risk still devote the first pages of their work to discussing its definition (Chernobai , 2006; Bessis, 2010). This suggests that while its definition is accepted, its usage still needs to be justified.

Throughout the literature, five important traits of operational risk were identified. First operational risk is diverse and multidimensional (Hoffman, 1998; Marshall, 2001; Milligan, 2004). Buchelt and Unteregger (2004) describes it as a highly varied and interrelated risk that can stem from potentially infinite origins. Second, operational risk lacks a financial indicator and robust data. De Koker (2006) argues that while the logics of risk return can be applied to credit and market risk, this is harder for operational risk as there is no closely relatable financial indicator.

Also, a quantitative approach to operational risk is further complicated by the lack of robust data (Muzzy, 2003) and by the difficulty of modeling human behavior (Marshall, 2001). Third, operational risk is characterized by a heavy –tailed distribution (Moosa, 2007; Wei, 2007). Further evidence of this trait comes from the statement of (Chernobai, 2006) operational loss is characterized by high kurtosis, several right-skewedness, and a very heavy right tailed distribution'. Fourth, operational risk is considered a cultural issue.

As argued by Buchelt and Unteregger (2004) because of its diversity and business embeddedness, the handling of operational risk cannot be

retained by the highest management. Therefore, operational risk management is described as a corporate activity rather than a managerial task, i.e. all employees and functions are involved with operational risk and thus it can be labeled as a "cultural risk" (Rao & Dev, 2006). Fifth, operational risk is considered to be more endogenous than credit and market risk (Moosa, 2007). By simply looking at the definition of operational risk, it is clear that its cause is more likely to be internal than external. The interesting aspect of viewing operational risk as an endogenous risk is that it rests within the control of the organization (Kaiser & Kohne, 2006).

Additionally, three important debated features of operational risk were identified: first, is operational risk one-sided? Herring (2002) argues that operational risk can be defined as a "downside risk" because it is difficult to imagine a scenario in which operational risk leads to an unexpected profit. Lewis and Lantsman, 2005) support this argument by arguing that operational risk is one-sided because only one-side probability of loss or no loss exists. Following the same rationale, Crouch (2004) stress that "by assuming more operational risk, a bank does not expect to yield more on average" from this perspective then, it is safe to conclude that a bank does not actively seek exposure to operational risk as the underlying assumption is that there is no reward from bearing operational risk.

According to Maoosa (2007), banks do not expose themselves to operational risk because it is fun but because they monetize such activities. Therefore the proposition that operational risk is not rewarded is rejected.

Moreover, the author argues that operational risk does not lead to a loss or no-loss situation because corporations deliberately take on risk for the sake of potential reward, and in this sense operational risk cannot be one-sided.

Both sides have very strong arguments; it is suggested that the conflicting positions are result of different stating assumptions. whereas most of the authors consider operational risk as a by-product of financial institution taking on credit and market risk (Crouch, 2004), Moosa (2007) also includes those activities of the bank that are exclusively made up of operational risk (asset management, custodial service, etc) on top of that, while Moosa (2007) directly implies business expansions to operational risk increases, this is not given in other authors reasoning. The viewing of operational risk as one sided is comfortable because, profits are hard to impute to operational risk and also because such perspective emphasizes the need to increase efficiency. However, from a theoretical perspective, the view of operational risk as one – sided is faulty as it fails to see the revenue side.

Second, is operational risk idiosyncratic. Lewis and Lantstsman (2005) stress that operational risk is idiosyncratic because its manifestation is uncorrelated with market forces. Danielsson (2001), in their critique to Basel II- state that operational risk is idiosyncratic because immune to contagion. On the other hand, there are four main reasons for which Operational Risk as idiosyncratic can be considered wrong: one, according to Moosa (2007), viewing operational risk as idiosyncratic is quite strange because it implies that if a bank incurs losses from a loan default or market adverse movement,

its ability of meeting its financial obligations will be affected, whereas the same is not true for operational losses. For example, if a bank faced a massive loss as a consequence of an adverse market movement on proprietary trading positions, the bank will have problems to pay back its debts to other financial institutions.

However, a loss with the same magnitude would have no consequences for other financial organizations if it stemmed from operational risk. This is not consistent with what observed during the failure of baring bank and long-term capital management, where the overall system was affected Bessis (2010). Two, given the objective of regulators the simple fact that Basel II regulates operates operational risk is an indication that operational risk can have systemic consequence. Three, Bali and Allen (2004) make the general proposition that operational loss events incorporate cyclical components that are correlated with systematic risk factors such as macroeconomic fluctuations (implying that operational risk is not idiosyncratic). Four, operational risk cannot be idiosyncratic simply because of the presence of group think (Moosa, 2007). In the light of what stated above, the debate on the idiosyncratic feature of operational risk can be concluded in favor of its opponents. Not only viewing operational risk as idiosyncratic is misleading, it is also dangerous for the well functioning of the financial system.

Third, is operational risk indistinguishable from market and credit risk? The recent financial crisis highlighted that there is a strong interrelation between credit, market, and operational risk (Bessis, 2010; Cline, 2010).

Also, as argued by Buchelt and Unteregger (2004), operational risk can materialize directly or indirectly through credit or market risk. However, in the views of Kaiser and Kohne (2006) and Rebonato (2007), the proposition that operational risk cannot be distinguished from credit and market risk can be rejected because by applying a cause driven risk categorization the issue is solved. Despite for the benefits of a cause – based risk categorization, regulators have decided to enforce an event driven risk categorization (BCBS, 2006) as it allows standardizing risk exposure across the banking industry. Thus the problematic of confusing operational risk with credit and market risk is likely to remain in the future.

Operational risk management is typically understood as part of the broader concept of risk management (Allen, 2004; de Koker, 2006; Chernobai, 2007). However, operational risk, as opposed to market and credit risk cannot be managed through quantitative approaches only. According to Marshall (2001), because operational risk is very diverse, its management implies several activities and discipline that are directly aimed at dealing with operational risk. For example, projects that aim at improving the quality of internal processes (TQM – Total Quality Management) can also be considered as operational risk mitigation. This implies that several aspects and departments of the corporation, through their daily activities are actually involved in the operational risk management (insurance, operational management, audit, compliance, legal, quality assurance, etc.) therefore, in order of encompass the multidimensionality of operational risk; its

management has to be approached in the most general way possible (Marshall, 2001).

The frameworks are not specific to financial corporations as operational risk is borne by all firms, regardless of the industry. In line with Marshall (2001), the few frameworks encountered maintain a very broad stance of operational risk. This happens for two reasons: first, the diversity of operational risk makes it hard to develop a fine tuned framework that remains encompassing. Second, because operational risk is specific to each organization, there is little use for a detailed framework as its usage is limited to the context it was developed for. After an analysis of the different model offered (Marshall, 2001), it can be concluded that operational risk frameworks mainly revolve around four standard elements:

Figure 1: Operational Risk Framework

Source: Marshall, 2001

One, identification: through a data collection process risks are identified and classified (Marshall, 2001). The identification of operational risk is typically an employee's task while its classification is carried out by the risk manager. Among others, banks use the following risk identification sources: metrics; financial events; near misses; external events; audit reports; etc. Two, Assessment: the risk is assessed on the basis of its magnitude and frequently. The process is tedious and typically based on a quantitative approach (Allen, 2004). Three responses: the risk assessment is compared with the risk appetite of the bank and the risk mitigation options are explored from a cost-benefit perspective. As result the corporation will decide if the risk is to be avoided, reduced, transferred or retained. During this step managers are confronted with a strong conflict of interest: efficiency vs. control (Marshall, 2001). For, reporting and monitoring: risk information is disclosed to risk internal and external stakeholders. Additionally, the overall framework is assessed and the finding will serve as an input for the first step.

Last but not least, in relation to operational risk management frameworks, often authors relate the concept of bureaucracy. In particular it is argued that risk management practices have increased the bureaucratic burden for corporations (Power, 2004; Power 2007). As a support, Habib and Chen (2009) provided evidence that risk management, besides for being bureaucratic also moralizes organization life. Additionally, imposed risk management practices are likely to be associated to further bureaucracy as "conformity to

institutionalized rules often conflicts sharply with efficiency criteria" (Meyer & Rowan, 1977).

Because operational risk involves a broad set of activities and disciplines, it is impossible to summarize best practices as they extent to basically each activity of the bank; from policies regulating anti-money laundering to the security level of the IT system. However, there is one aspect of operational risk that has attracted the attention of researchers and is directly imputable to operational risk management: risk awareness. The establishment of a risk aware culture is considered to be a key element of managing operational risk (Buchelt & Unteregger, 2004; Rao & Dev, 2006; Moosa 2007).

As argued by Marshall (2001) operational risk management relies on the positive attitudes of staff at every level. Such attitude can be nurtured by risk aware culture or obstructed by a mere focus on short-term profits. Corporate culture can be defined as "a complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conduct its business" (Deal & Kennedy, 1982; Barney, 1986). Therefore, despite the intangible aspects of a corporate culture (beliefs) , risk policies and standards (norms) can be used to inspire and direct the behavior of employees (Marshall, 2001). Additionally, with regards to corporate culture, a big challenge that financial institutions face is to institutionalize and leverage individual operational risks before the organization does, therefore financial institutions

need to disclose the individual's finding and adapt policies in order to leverage it throughout the corporation.

Framework of Basel Committee on Banking Supervision

The Basel Committee on Banking Supervision (BCBS) is governed by the Bank for International Settlement (BIS) and can be considered as the most prominent regulator within the financial industry. The BCBS provides a forum for cooperation on banking supervisory matters and promotes financial stability by attempting to avoid systemic failure (BIS, 2010). The BCBS has two important contributions to the management of operational risk. Firstly, operational risk management is regulated in the Basel II framework (BCBS, 2006) . Operational risk is discussed in the first pillar of the framework, thus minimal capital requirements. This approach is quantitative and aims at the measuring of operational risk (risk modeling) rather than at improving its management. Secondly, the BCBS recently issued a reviewed version of the sound practices for the management and supervision of operation risk (BCBS, 2011). The best practices emphasize a qualitative approach to a sound operational risk management that address three main issues: governance, risk management environment, and disclosure.

Nevertheless, the comments of Bolton and Berkey (2005) are self-explicatory: the sound practices paper provides an excellent outline for designing an operational risk management framework modeling despite the enthusiasm of Bolton and Berkey (2005), because the guidelines have to

accommodate the needs of unique financial organizations and are addressed to the highest authorities of the bank, they remain at a broad and conceptual level.

Basel II

There are a number of risks facing the financial system and its participants, which unless controlled could hamper the financial stability of the economy. Proper regulation of the financial sector is necessary, and helps in controlling a number of the major risks affecting the system. By regulating the environment and setting the ground rules for the individual companies operating within the financial system, a good regulatory system contributes to financial stability and is as such fundamental to the growth and evolution of the economy. It is believed that the regulatory system itself is very important, since its implications could be seen as fundamental not only to the financial sector but to the society as a whole. It is critical to limit the effect of disturbances in the financial system. Disturbances within a sub market or a company should not be able to spread in a systematic way that would hamper the whole system. Such risk, so called system risk, must be minimized.

The capital requirement regulation limits, the total risk exposure in the system by putting a ceiling to how much each individual bank can leverage its capital base. Through leveraging its capital base, banks manage to achieve a decent return on equity, and the level of debt versus equity is thus important for the ultimate profitability of these banks. Too high leverage would have far reaching implications in the case of market disturbances, and contribute to

increased instability in the financial system. Capital requirements are needed, since they constitute one of the most effective measures against system risk. The increasingly global nature of the financial markets has led to a need for standardization of the capital requirements.

Many banks operate across a number of geographies and markets, and there is a need for a common multinational regulation to remove the competitive inequality, which arises from differences in national capital requirements. Some argue that unless standardized, it becomes very hard to aggregate risks and give a true picture of the total risks in any larger banks. Enabling transparency of the risk exposure is another driver behind the regulations.

The standardization of the capital requirements forms one of the most efficient measures to ensure financial stability. It limits the spread of disturbances within the system, this regardless of where banks operate. This is the reason for the strong focus within the sector on implementing these requirements. The overall goal is to improve supervisory understanding and the quality of banking supervision worldwide, through formulating broad guidelines and recommending best practice to national authorities.

So, instead of centralized legal enforcement, local authorities are expected to take the necessary actions in order to drive the more detailed implementation of the guidelines in the way that works best with each country's national system.

Since the early eighties, most of the Committee's time has been devoted to the capital requirements. Introducing Basel I for handling credit risk. Historically the main focus for banks and regulators has been on how to reserve for credit risk, or the risk of counterparty failure. In 1988 Basel I was published, regulating the credit risk. Its main feature was the introduction of a minimum capital ratio, defined as the relationship between capital to risk-weighted assets, and the minimum level was set to 8 percent. Since its introduction in 1988, the credit risk framework has been introduced not only in the Basel Committee member countries but also in virtually all other countries, with active international banks. During the nineties risk control improved significantly, much due to the evolution of new and improved credit risk tools. Most banks have started to quantify, aggregate and manage their credit risk in more sophisticated ways, across geography and various product lines. The improved control and understanding of credit risk has led to lower capital requirement needs for managing the credit risk exposure.

Amending Basel I to account for market risk exposure over time other risks emerged as the financial market became more sophisticated, and especially the explosive growth and evolution in the securities market led to new challenges and risk exposures.

The first major refinement of the framework came in 1996, when the Committee introduced the Market Risk Amendment, which became effective in the end of 1997. It was designed to introduce capital requirements for market risks, defined as "the risk of losses in on and off-balance sheet positions

arising from movements in market prices. The risks subject to this requirement are: the risks pertaining to interest rate related instruments and equities in the trading book; foreign exchange risk and commodities risk throughout the bank". The question of how to measure these risks became a serious discussion topic, since it was obvious that the rapid innovation in the banking and financial market meant that the banks themselves were best suited to measure their own risk exposure. The amendment allowed, as an alternative to a standardized measurement method, the banks use internal value-at-risk models as the basis for measuring their market risk exposure, as the rapid pace of change within the industry called for this solution.

Need for a new framework resulting in Basel II

Even with the addition of the Market Risk Amendment, the capital regulations were seen as rather crude, not properly reflecting the risk exposure of the individual banks. Already in 1999, the Basel Committee issued a proposal for a new capital adequacy framework to replace Basel I. This proposal resulted 2004 in the release of Basel II. The basis for the new framework consists of three pillars, Minimum Capital Requirements - Capital requirements based on standardized rules, Pillar one focuses on equals today's capital requirements, with the addition of an operational risk framework, and describes the basis for the capital requirements calculation.

The focus is on refining the way credit risk is calculated and accounted for and looks over the portfolio risk rating, while ensuring the new operational

risk requirements are implemented and finally that a proper measurement system for these risks is created. Supervisory Review Process Review of an institution's processes related to capital adequacy and internal assessment Pillar two focuses on the Supervisory review, where the supervisor assess whether any additional capital requirements are needed. Banks are required to prepare an Internal Capital Adequacy Process (ICAP) document, where processes etc. are described to the supervisor. The supervisory authority review and approve the ICAP, which is the basis for the risk calculation, and decides whether any additional capital requirements are needed.

A central part of Basel II is that it is the institution itself that drives and designs its own ICAP. Regulatory input is given on the principles and the end result, but it is the Board and Senior Management that is responsible for the exact design of the process and implementation. Market Discipline Disclosure of relevant information and practices. Pillar three focuses on the information that should be disclosed to the market. This information should enable transparency of the risk exposure, and form the basis for the external view on the company's risk processes. These three pillars form what the Committee believes are the three essential pieces of an effective capital framework.

Basel II is believed to significantly improve the way regulatory capital requirements reflect underlying risks, and also to better capture the financial innovation, which has taken place over the past years. It aims at rewarding improvements in risk measurement and control and provides incentives for such improvements to continue. By introducing the recommendations around

review and disclosure, i.e. pillars two and, the Committee also has expanded the scope of the previous framework. The ambition with Basel II is not to suffocate banks with more regulations and complexity, but to create a more risk sensitive system and improve the capital allocation within the financial sector.

By improving transparency, it allows market participants to make more informed decisions when choosing financial institution, and through this create incitements for the institutions to improve their risk management. The addition of an explicit capital requirement for operational risk in pillar one is one of the largest changes when comparing Basel I and Basel II. Historically organizations have simply accepted operational risk as an unavoidable cost of doing business. This laissez-faire approach towards operational risks is now on its way to be abandoned, and it is required that these risks also need to be assessed and quantified. How then do you quantify operational risks?

The Basel II framework acknowledges that it is hard to directly quantify them, and takes into account that historically part of the supervision of operational risk has been managed by internal audits, authority levels and processes a new framework should thus take these into account and build on them rather than build something completely new and different. What is required however by the committee is that the risk management processes is more holistic than audits and internal control systems and require that there in addition should be a systematic approach to how a company works with eliminating and controlling its operational risks. The approach is shaped by the

fact that the Committee believes that the main responsibility to manage, understand and ultimately control operational risk resides with the Board and Senior Management of each institution.

It is believed that operational risk management is most effective when an institution's culture stresses strong ethical behavior at all levels, both in words and in actual actions, starting at the top. A framework that explicitly monitor, manage and reports on operational risks should be established in each institution, above and beyond internal control and audit processes. The regulatory body has set forward the following three recommendations on how operational risk should be calculated, listed in order of increasing sophistication:

Basic Indicator Approach:

A simple calculation based on the annual revenue of the Financial Institution.

Standardized Approach:

Slightly more advanced method, based on the annual revenue, here split into the broad business lines of the Financial Institution (FI) with different risk weightings applied.

Advanced Measurement Approaches (AMA):

Based on the internally developed risk measurement framework of the bank (methods include audit and control department, procedure and policies Committee, Scenario based, and Scorecard etc.) The simpler approaches are targeting banks with less significant risk exposures using standardized

measures and the advanced approach is the preferred for most banks and institutions with more significant operational risk exposure.

A bank will be permitted to use the Basic Indicator or Standardized Approach for some parts of its operations and an (AMA) for others provided certain minimum criteria are met. Each method is described in more detail below. The Basic Indicator Approach links the capital demand for operational risk to the institution's operating income. It sets the capital demand for operational risk to 15% of the average operating income. The average operating income is defined as the average of the last three years operating income, taking only positive yearly operating income into account. Here, the operating income is defined as net interest, net leasing, net financial transactions, dividend received, and other operating income. The Basic Indicator Approach, the default approach, requires no permission from (FI) and should be used by parties, which have not been give permission to use another method.

The Standardized Approach improves the granularity of the analysis. The institution's business is divided into eight pre-defined business areas. For each of these areas an income indicator and a percentage level are determined. The total capital requirement is the sum of the product between the income indicator and the percentage level over the eight business areas. The income indicator is based on the Operating Income for the business area and is calculated in the same manner as in the Basic Indicator Approach. The Standardized Approach requires approval from (FI), and approval is based on

overall work with operational risk and development of income indicators per business area. A substantial part of the business area has been closed, and the income indicator due to this do not give an appropriate picture of the business, the institute can apply for calculating the capital requirement based on a different indicator during a transition period. An institute may, after approval is given by (FI), use a combination of the basic and the standardized method in certain cases. One example can be when for example acquiring a business - then a combination of the two methods can be used for a limited time.

Advanced Measurement Approach: In order to qualify for using the (AMA) a bank must ensure its supervisor, board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework; It has an operational risk management system that is conceptually sound and is implemented with integrity; and It has sufficient resources in the use of the approach in the major business lines as well as the control and audit areas.

The bank's measurement system must also be capable of supporting an allocation of economic capital for operational risk across business lines in a manner that creates incentives to improve business line operational risk management. In essence however, banks are allowed considerable freedom in implementing their own method for assessing their exposure to operational risk, as long as it is sufficiently comprehensive and systematic. Unlike credit risk or market risk, operational risk is, to a large extent, endogenous to the institution. It is linked to the nature and complexity of the activities, to the

processes and systems in place, and to the quality of the management and information flows, to name but a few factors.

The lack of appropriate controls and limitations can rapidly become disastrous for a financial institution, way beyond any capital requirements. For this reason, superficially similar financial institutions might end up with very different operational loss patterns.

Descriptions of bank practices can be found in (Crouhy, 2001), Hoffman (2002), Alexander (2003) and Jorion (2003). Under the First Pillar of its recommendations, the Basel Committee (BCBS, 2003) defines sound practices for operational risk management. This set of practices applies to all institutions, regardless of the regulatory capital model. They include clear strategies and oversight by the board of directors, an internal control culture, effective internal reporting, and contingency planning. Of course, operational risk management is not really new in the banking sector. Long before regulators addressed these issues, internal and external fraud were monitored and prosecuted by the internal audit department; (IT) departments and controllers were already aiming at preventing breaches of security on the information system; and Business Continuity Plans were setup and tested in most large financial institutions to insure the going-concern of the activities in case of major system breakdowns or physical damages.

The Basel reform has put a common name on a myriad of existing practices, providing a powerful incentive to improve the organization and to expand the scope of this activity. Operational Risks erode the corporate

earnings and impact the reputation of the Bank in the marketplace. What may surprise stakeholders is that a number of financial experts say poor operational risk management has been the underlying cause of every major financial services loss over the past two decades.

Historically, (ORM) has taken a back seat to the management of the other major risks, which are often defined as market, credit, insurance and strategic risk and sometimes include liquidity, legal and reputation risk. This has not only caused operational risk to be underestimated, but has also obscured the underlying causes of many of the most significant financial losses. Operational risk on its face, it sounds enormously simple that is the risk of financial loss from any operational failure.. For instance, too often operational risk has been misdiagnosed as other, relatively newer areas of recognized exposures such as those involving (IT) security, supply chain and business interruptions.

Typically, executives at non-financial organizations advance these views - pointing out, for instance, that they don't run complex trading operations or have the related balance sheet concerns faced daily by the world's banking, energy and commodity firms. Operational risk has been recognized formally by the regulatory community as a legitimate issue only recently and has not helped encourage active recognition or management of it. That acknowledgment came in 1999, when the Basel committee on banking supervision, a global financial services firm, highlighted operational risks as a distinct potential

In fact, banks and insurers acknowledge that they do not know if their operational risk management endeavors to date have been successful. An empirical study revealed that Many financial firms have spent a lot of resources hoping to improve their management of operational risk, but those initiatives do not appear to have achieved their desired objectives. In order to prevent this risk, the Basel Committee on banking supervision, comprised of central banks and supervisory authorities countries, met in 1987 in Basel, Switzerland. The committee drafted a first document to set up an international 'minimum' amount of capital that banks should hold. This minimum is a percentage of the total capital of a bank, which is also called the minimum risk-based capital adequacy. In 1988, the Basel I capital Accord (agreement) was created. The Basel II Capital Accord follows as an extension of the former, and was implemented in 2007.

The Basel I Accords

In 1988, the Basel I Capital Accord was created. The general purpose was to:

One, strengthen the stability of international banking system. Two, set up a fair and a consistent international banking system in order to decrease competitive inequality among international banks. The basic achievement of Basel I have been to define bank capital and the bank capital ratio In order to set up a minimum risk-based capital adequacy applying to all banks and governments in the world, a general definition of capital was required. Indeed,

before this international agreement, there was no single definition of bank capital.

The first step of the agreement was thus to define it. Basil I define capital based on two tiers: One, Tier 1 Core Capital includes stock issues (or share holders equity) and declared reserves, such as long loss reserves set aside to cushion future losses or for smoothing out income variations.

Two, Tier 2 Supplementary Capital includes all other capital such as gains on investment assets, long-term debt with maturity greater than five years and hidden reserves and excess allowance for losses on loans and leases. However, short-term unsecured debts (or debts without guarantees), are not included in the definition of capital.

The world financial market is an extremely complex system that involves many different participants from local bank to the central bank of each nation and even the investor. Due to its importance on the global economy and our everyday lives it is vital that it is functioning properly.

One tool that helps the financial markets run smoothly and also check operational risk is a set of international banking agreements called the Basel Accords. These accords coordinate the regulation of global banks and other financial institution and are an international framework for internationally active banks. The accords are obscure to people outside banking, but they are the backbone of the financial system. The Basel Accords were created to guard against financial shocks, which is when a faltering capital market hurts the real economy, as opposed to a mere disturbance. The Basel Accords determine how

much equity capital - known as regulatory capital a bank must hold to buffer unexpected losses. Equity is assets minus liabilities. For a traditional bank, assets are loans and liabilities are customer deposits. But even a traditional bank is highly leveraged. If the assets decline in value, the equity can quickly evaporate. So, in simple terms, the Basel Accord requires banks to have equity cushion in the event that assets decline, providing depositors with protection.

The regulatory justification for this is about the system: If banks fail, it spells systematic trouble. If not for this, we would let banks set their own levels of equity - known as economic capital - and let the market do the disciplining. So, Basel attempts to protect the system. Modern banks originate and distribute and they have astonishingly complex balance sheets. For example, many banks have been tilting away from long-term illiquid assets and toward tradable assets. In addition, many banks routinely securitize. That is, they sell loan assets off of their balance sheets, or achieve a similar risk transfer by purchasing credit protection from a third party, often a hedge fund indirectly. This is called a synthetic securitization.

The Basel I Accord, issued in 1988, has succeeded in raising the total level of equity capital in the system. Like many regulations, it also pushed unintended consequences because it does not differentiate risks very well, it perversely encouraged risk seeking. It also promoted the loan securitization that led to the unwinding in the subprime market.

Therefore, it is very hard to design a plan that does not give advantage to a banking giant over a smaller capital requirement. Minimum capital is the

technical, quantitative heart of the accord. Banks must hold capital against 8% of their assets, after adjusting their assets for risk. Supervisor review is the process whereby national regulators ensure their home country banks are following the rules. If minimum capital is the rulebook, the second pillar is the referee system. Market discipline is based on enhanced disclosure of risk. This may be an important pillar due to the complexity of Basel. Under Basel II, banks may use their own internal models and gain lower capital requirements but the price of this is transparency. The accord recognizes three big risk buckets: credit risk, market risk and operational risk. In other words, a bank must hold capital against all three types of risks.

A charge for market risk was introduced in 1998. The charge for operational risk is new and controversial because it is hard to define, not to mention quantify, operational risk. The basic approach uses a bank's gross income as a proxy for operational risk. Not only is the implementation staggered globally, but the accord itself contains tiered approaches. For example, credit risk has three approaches: standardized, foundation internal ratings-based (IRB), and advanced (IRB). Roughly, a more advanced approach relies more on a bank's internal assumptions. A more advanced approach will also generally require less capital, but most banks will need to transition to more advanced approaches over time.

There has been a tremendous growth in both volume and complexity of products traded in the financial market during the last fifteen years. Since the early 1990s the general environment of the financial institutions has changed

dramatically and will continue to change, due to the globalization and (IT). Among the most advanced applications in finance are managing market, credit, investments and business risks. In other markets there are similar ways for handling risk, like health, environment pollution and ecological risks. One way of classifying risks in banking is in accordance with their sources thus, one, Market Risk, the risk that the value of traded assets will decrease due to volatility in market factors.. This risk is relatively well-understood even if there still is room for improvement.

Two, Credit Risk, the risk of loss that depends on uncertainty in a debtor's ability to meet their financial obligations. Even this risk is relatively well-understood, although there is still room for improvement. Operational Risk, according to Basel II, the risk of loss resulting from inadequate or failed, internal processes, people and systems, or from external events. It is this risk that is on the Basel II's agenda. Three, Liquidity Risk, a risk that lack of market liquidity cannot be solved quickly enough.. And four, Risk Integration, a market-credit risk integration is discussed, but it has not yet been carried out. Risks in banking can also be categorized into internal and external risks. Credit and market risks are external, i.e., they originate from the environment of the bank and both are driven by revenue.

On the other hand, OR originates mostly from within the bank organization, except for external risks such as natural disasters, terrorism and vandalism. OR is normally not revenue driven, but when ORM is concerned with quality management, it also contributes to client satisfaction, reputation and

shareholders' value.

But a general systemic approach to ORM calls for a methodology for conceptualizing and operating the systems. Such an approach has to start with the identification of the systems characteristics. A number of approaches have been developed for modeling OR. In September, 2001, Basel II published a consultative paper that included OR. This document points out that the banking institutions in the future have to include in their ORM both how they manage and how they measure OR. Moreover, in the proposed regular framework OR must be reported explicitly, and no longer implicitly as hitherto included in other risks, which now belong to credit risk. One reason for a new OR framework is that the measurement of credit risk for calculating credit capital requirement has recently been changed, and there is no longer any buffer for other risks in credit risk.

Another reason is that larger international banks are very much influenced by the rapidly increased in technology and the complexity of new financial products and strategies. Therefore, it is suggested that other risks need to be handled more carefully. Moreover, there is an ongoing debate about which OR definitions might be the best. In October, 2002, the Committee provided the following definition of the OR: The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, and therefore includes legal risk, but not strategic, reputational and systemic risks The definition above is based on the four causes of OR events, i.e., people, processes, systems, and external events. However, the Committee has not yet

defined the word loss, but its demand is that the banks build up historical loss databases, even if not all indirect losses or opportunity costs have to be covered by capital requirement.

Some important questions are how a loss event can be distinguished from a normal cost, e.g., at what point or threshold does the normal cost become a loss event, and how to identify operational losses already taken into account by market and credit risks. Moreover, OR is divided into business, or strategic, risks and internal risks. Strategic risks are those when external factors cause a failure to attain expected returns, as a result of changes in the political, regulatory, and legal environment or as a result of competition. On the other hand, internal risks can result from losses or nonpayment of earnings because of failures in internal processes, people and systems.

However, in May 2001, the Committee started mapping the banks' OR data. This exercise was repeated in October 2002, and was called the third quantitative impact survey, or QIS 3, and included detailed data for the most recent financial year (2001). More than two hundred banks from forty different countries participated in this survey, the purpose of which was to produce a new Accord, including ORs for banks, by the end of 2006.

As mentioned above, this data includes not only information on banks' OR losses, but also on different exposure indicators. It can be difficult to foresee the actual future outcomes and to assign probabilities to them. Top of Form Basel III is a set of international banking regulations developed by the Bank for International Settlement in order to promote stability in the international

financial system. The purpose of Basel III is to reduce the ability of banks to damage the economy by taking on excess risk.

The Basel III Accord

In order to reduced the ability of banks to damage the economy by taking on excess risk, banks must hold more capital against their assets, thereby decreasing the size of their balance sheets and their ability to leverage themselves. While these regulations were under discussion prior to the financial crisis, their necessity is magnified as more recent events occur. The Basel III regulations contain several important changes for banks' capital structures.

First of all, the minimum amount of equity, as a percentage of assets, will increase from two percent to four and half percent. There is also an additional two and half percent "buffer" required, bringing the total equity requirement to seven percent. This buffer can be used during times of financial stress, but banks doing so will face constraints on their ability to pay dividends and otherwise deploy capital. Banks will have until 2019 to implement these changes, giving them plenty of time to do so and preventing a sudden lending freeze as banks scramble to improve their balance sheet (BCBS, 2006).

It is possible that banks will be less profitable in the future due in part to these regulations. The seven percent equity requirement is a minimum and it is likely that many banks will strive to maintain a somewhat higher figure in order to give themselves a cushion. If financial institutions are perceived as being safer, the cost of capital to banks would actually decrease. Banks that are more

stable will be able to issue debt at a lower cost.

Basel III is not a panacea, and will not single-handedly restore stability to the financial system and prevent future financial crisis. However, in combination with other measures, these regulations are likely to help produce a more stable financial system. In turn, greater financial stability will help produce steady economic growth, with less risk for crisis fueled recessions such as that experienced following the global financial.

While banking regulations may help reduce the possibility of future financial crises, it may also restrain future economic growth. This is because bank lending and the provision of credit are among the primary drivers of economic activity in the modern economy. Therefore, any regulations designed to restrain the provision of credit are likely to hinder economic growth, at least to some degree. Nevertheless, following the events of the financial crisis many regulators, financial market participants and ordinary individuals are willing to accept slightly slower economic growth for the possibility of greater stability and a decreased likelihood of a repeat of the events of 2008 and 2009.

As with any regulations, the ultimate impact of Basel III will depend upon how it is implemented in the future. Furthermore, the movements of international financial markets are dependent upon a wide variety of factors, with financial regulation being a large component. Nevertheless, it is possible to generalize about some of the possible impacts of Basel III for investors. It is likely that increased bank regulation will ultimately be a positive for bond market investors. That is because higher capital requirement will ultimately

make bonds issued by banks safer investments. At the same time, greater financial system stability will provide a safer backdrop for bond investors, even if the economy grows at a slightly weaker pace as a result. The impact on currency markets is less clear; but increased international financial stability will allow participants in these markets to focus upon other factors while perhaps eventually giving less focus to the relative stability of each country's banking system.

Finally, the effect of Basel III on stock markets is uncertain. If investors value enhanced financial stability more than the possibility of slightly higher growth fueled by credit, stock prices are likely to benefit from Basel III (all else being equal). Furthermore, greater macroeconomic stability will allow investors to focus more on individual company or industry research while having to worry less about the economic backdrop or the possibility of broad-based financial collapse.

As a conclusion on the this chapter, it is important to notice that while there is a lot of literature on the conceptual aspect of operational risk and its measurement, the same cannot be said about operational risk management best practices. The financial industry quantitative bias was reflected in this research has been overlooked. Because operational risk extends to all the discipline of a corporation (e.g. from abstract concepts such as corporate learning to concrete aspects such as the insurance of employees or the security of the IT system) providing an ultimate reference to operational risk management best practices is extremely difficult (Marshall, 2001). As a result, risk managers at the business

unit level do not have a framework or a model to refer to as outlined by the BCBS (2011).

CHAPTER THREE

METHODOLOGY

Introduction

This chapter seeks to examine how the research is conducted. It deals with the procedures and techniques to collect data and the justification of using them. There are different types of research methods and the choice for any particular study must depend on the objective of the research (Burns & Bush, 2000). The chapter addresses in detail the research design, population, sampling and sample procedure, instrument used, and data collection techniques employed for the study and the explanation for their choice.

Description of the selected Banks

The case study of the work was drawn from selected banks in Ghana namely UT Bank Ltd, Cal Bank Ltd, SG Ghana Ltd, Agricultural Development Bank Ltd. In view of that the researcher writes up some description about these banks which are the main subject of discussion in the study. The UT Bank Ghana Ltd (Formally Unique Trust Financial Services) commenced business as a Financial House in 1997 under the name Unique Trust Financial Service Ltd. It has evolved from a lending institution to a universal bank through the acquisition of the former BPI Bank in 2008. From a humble beginning as a privately owned Company in Ghana, UT Financial Ltd became a publicly owned Company in 2008 with the shares listed and actively traded on the Ghana Stock Exchange Market. The bank was re-branded and open for business in May 2009.

The bank was given a new name UT Bank in the year 2010. The bank focuses its operations mainly on informal sector of the economy. The bank which has a slogan "take a loan within 48 hours " employs about 1,000 of the Ghanaian work force.

Cal Bank, currently the most innovative indigenous Ghanaian Bank in Ghana. Cal Bank formally "Continental Acceptance Ltd and Cal Merchant Bank" commenced operations in July 1990, providing world class financial solutions to the Ghanaian Banking sector. Cal Bank received its Universal Banking licence in 2004 and soon commenced providing specialised retail banking service. With its highly skilled professional staff who emphases the delivery of efficient and excellent customer service. Cal Bank Ltd continues to provide a broad range of Banking and financial solutions to large corporations, small and medium-sized enterprise, public sector institutions and retail customers through a network of 18 branches and 50 offsite ATM across Ghana.

At Cal Bank their promise is to deliver service you can that always Bank on their customer-centric approach in our customer delivery is underpinned by the Bank's ethos of customer delight. It is out of this that the slogan "Bank on our service" continuously drive the Bank to play an important role in the Ghanaian financial sector by providing total Banking service to personal commercial and corporate clients in Ghana and beyond.

Societe Generale (SG) Ghana is one of the strongest local banks. It has been one of the leading banks in Ghana. SG Ghana Ltd operates 45 fully networked branches, agencies and other outlets across the country and serves

customers, individual, Small and Medium Enterprise (SME). It was incorporated in 7th February 1975, was incorporated as a private Ltd Liability Company with the Security Guarantee Trust Limited and was solely owned by the SSNIT. In February 1976, SSNIT change the of the bank from Security Guarantee Trust Ltd to Social Security Bank Ltd and granted licence to operate as a bank in 17th September 1976 by Bank of Ghana. The bank commenced business effectively on 17th January 1977. The Bank successfully merged the then National Savings and Credit Bank and retained the SSB Ltd on 3rd May 1994. The bank made a public offer of 30% of its shares in July 1995. In the same year SSNIT also divested 20% of its share holding in the bank. The bank was listed on the Ghana Stock Exchange Market in Oct 1995. The bank changed its name from SSB Ltd to SSB Bank in 1998. Again in March 2003 the ownership of the bank changed.

Societe Generale, one of the largest bank in the world acquired a controlling shares in SSB Bank thus making SSB Bank a subsidiary of Societe Generale. It is important to note that the then SSB Bank was purposely set up as a workers bank and then also to serve as intermediation between the Government agencies and the cocoa growing areas (cocoa purchase).

The Agricultural Development Bank was established in 1976 by the Government of Ghana and the Bank of Ghana. It was set up solely to take care of Agriculture sector. The bank acquired Universal Banking services in 2004 in other to take up other banking activities apart from agriculture.

Research design

This refers to the overall plan employed to obtain answers to the research questions and allows the researcher to test the hypotheses (if need be) formulated in the study. For the purposes and the analysis of the finding, An explorative study and descriptive survey research design methods were used. These designs offers a researcher a valuable means to finding out what is happening and it is particularly useful if the research is to help provide understanding to a problem (Saunders, Lewis, & Thornhil, 2007). The descriptive survey allowed descriptive data to be collected from the respondents. It allowed respondents described the effectiveness, relevance and efficiency of operational risk management in their various banks in which they work.

Both quantitative and qualitative approaches were used to present the findings. Quantitative allowed findings to be present in percentages and frequencies and qualitative afforded the researcher opportunity of present respondents perception on operational risk management.

Population

The target population is the entire group from which a study is conducted. It is from the population that information is collected or the group of people the researcher is interested in or from which the sample size is drawn. The population of the study was made up of the staff of all the selected Banks under study. Its includes the senior members of the banks occupying management positions such as branch managers, business units managers, senior

managers including General Managers and other staff. The total number of the population was 455 members of staff. All of the selected banks have an operational risk management department headed by a General manager. The main responsibilities of the department were risk identification, risk assessment, risk evaluation and risk reporting

Sampling size and sampling procedure

The researcher employed stratified and simple random sampling techniques to select the respondents from the selected banks. The survey targeted both management and staff of the selected banks. The number of staff who are outsourced and those who are on contract were also included in the study. In all, a target sample size of forty five (45) was collected from each bank giving a total of one hundred and eighty (180) respondents in all. Out of the number selected from the banks, ten (10) senior manages from each bank were chosen across their respective branches and department. Ten (10) business unit managers, fifteen (15) branch managers and ten (10) other staff members from each of the categories were selected across branches, business units and the Operational risk Management Departments (ORMD) were interviewed.

Data Collection Techniques

Data collection is the fundamental process in any research work. The choice of data collection techniques is dependent on the overall judgment of which type of data is needed for a particular research technique (Ghaurid &

Gronhang, 2005) Data collection comes under three main means, namely quantitative, qualitative and pluralistic. Quantitative research involves the use of structured questions where response options are predominantly predetermined (Burns & Bush, 2000).

The use of this technique is more objective, the data is largely numerical and it is compiled in a formalized manner. As a result of constraints such as budget, scarcity of resources and time, sampling was used in the data collection, questionnaires were self administered and this allowed the researcher to reach a relatively larger number of the respondents and at a lower cost which helped to minimize the budget constraints. Moreover, respondents were more comfortable answering the questions on their own.

Data Collection Instrument

The method was made up of the use of structured few questionnaire and in-depth interview. The questionnaires were centered on the demographic aspect of the respondents using the questioner. Respondents were asked to tick the appropriate boxes for a number of statements related to their work, job description, academic background and their organization and on the implementation of operational risk practices in the selected banks.

Interviews were carried out face-to-face and one-on-one with respondents in their offices and sometimes in their homes. When respondent is in a secure, comfortable environment distraction is reduced and respondent takes more care in responding to question (Burns & Bush, 2000). Again the

interviews and the questionnaires were aimed at the bank's employees at their various branches and departmental levels. Respondents for the interview and the questionnaires, through the use of referral sampling. got some response from friends and colleagues. It was a bit more difficult getting referral people to respond to the interview. The twelve weeks observation period took place at the Operational risk Management Department of the selected banks. Seventeen interview questions were prepared for the study (Appendix I) on the basis of an interview guide that was design to suit different group of interviewees.

First contact with the General Managers was established and further interviews arrange through its connections. Such approach to sampling is technically defined as convenience and snowball sampling. (Bryman & Bell, 2007). Furthermore, structured interview method was chosen as it allows for flexibility and at the same time it emphasizes on the active role of the interviewee in framing and understanding the issues discussed. In line with (Creswell 2009) understanding of qualitative data analysis, reflection and interpretation occurred during the process of data gathering.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents analysis and discussion of the data gathered on effective management of operational risk in selected banks in Ghana. The data were gathered from 180 staff through questionnaire administration and interviews. The data were interpreted with the use of frequency tables and percentages. The chapter has been grouped under four main areas these are: Demographic characteristics of the respondents, interview discussions with the bank officials, effectiveness of operational risk management at the corporate or top level and effectiveness of operational risk management at the business units and retail or branch level.

Demographic Characteristics of Respondents

The demographic data of the respondents such as age, gender, work experience, qualification, rank and position were analyzed. These were used to assist the researcher to identify the category of the respondent in the study. In all the total number of respondents were 180 and out the number 127 representing 70.6%, were male whiles as the remaining 53 of the respondents representing 29.4% were female. The male outweigh the female could be attributed to the nature of work of the banking industry which is more stressful and time demanding.

Work Experience

The researcher analyzed the area of work experience of the respondents details are provided in Table 1. The study revealed that 43 respondents representing 23.9% had worked for 26-30 years. 30 representing 21.7% of the respondents had worked for 21-25 years. 36 representing 20% of the respondents had worked for 16-20 years. 29 representing 16.1% of the respondents had worked for 11-15 years. 26 representing 14.4% of the respondents had worked for 6-10 years and seven representing 3.9% of the respondents had also worked for 1-5 years.

Table 1: Work Experience of Respondents

Year's	Frequency	Percent
26 – 30	43	23.9
21 – 25	39	21.7
16 – 20	36	20.0
11 – 15	29	16.1
6 – 10	26	14.4
1 – 5	7	3.90
Total	180	100

Sources: Fieldwork, 2014

This implies that majority of the staff had worked for between 26 – 30 years and an indication that the Operational Risk Management Department of the selected banks can boast of rich experience staff with considerable number of years in the banking industry. They were caliber of staff who were capable of forming opinion about operational risk management in the bank. The study

took into account the qualifications of the selected banks. From the highest academic and professional to the lowest qualification as seen in table

Table 2: Qualification of Respondent

Qualification	Frequency	Percent
Master degree	26	14.4
ACIB	30	16.7
CA/ACCA	25	13.9
CIMA	18	10
Bachelors Degree	41	22.8
HND	23	12.8
A' Level	17	9.4
Total	180	100

Sources: Fieldwork, 2014

The data showed that 26 representing 14.4% hold Masters Degree, 30 representing 16.7% hold ACIB, 25 representing 13.9% hold CA and ACCA, 18 representing 10% hold CIMA. Forty one representing 22.8% hold Bachelor Degrees, Twenty three representing 12.8% also hold HND whiles 17 of the respondents representing 9.4% Advance Level certificate "A" Level. The data revealed that the selected banks actually hired qualified personnel in the bank and for that matter the operational risk department that had really helped in transforming the operational risk department to comply with the regulator's regulations. Its again revealed that the banks employed chartered bankers, chartered accountants and Master Degree holders to occupy various sensitive positions in the banks which per the data ranks 2nd, 3rd and 4th respectively.

The position of the respondents were analyzed and the findings are presented in Table 3.

Table 3: Position ranking of respondent

Positions	Frequency	Percent
General Managers	16	8.9
Business Units Managers	40	22.2
Senior Managers	25	13.9
Branch Managers	35	19.4
Other staff	64	35.6
Total	180	100

Sources: Fieldwork, 2014

The results from Table 3 depict that the ORMD could boast of 16 General Managers representing 8.9% and twenty five senior managers representing 13.9% of the respondents. This means that the managements of the selected banks have keen interest and understand operational risk management. The 64 representing 35.6% other staff was also highly recommendable. This was attributed to the literature Basel accord (2011) the importance and independence of operational risk management should be a core banking operation issue.

Interview Discussions with the Bank Officials

The Banking Environment

The interview analysis follow meticulously according to the research questions outlined in appendix I. The whole and entire banking system operations are risky (General Manager). The cash, cleaning, credit, foreign and above all management of selected bank staff. He says staff management is very delicate and dynamic, in that the caliber of staff the bank possesses today will determine the level of operational risk and how supervisors would manage. Cashiers sometimes do not balance their books and will not declare closing and opening balances. As manager it becomes very risky for instance a teller deliberately took GHS 23,000.00 and intentionally declares it as a shortage.

The situation called for task force from head office and upon interrogation and subsequent handing the case over to the police, she confessed eventually, the amount was retrieved and was dismissed (Branch Manager). So there should be an efficient system in place to rough check the entire cash again by the chief teller before sending them to the strong room. Supervisors must authorized and validate all transactions over and above the Teller's limit before processing.

The Business Unit Manager indicated that operational risk management is very keen and dear to the heart of management therefore management has taken the pains to train every member of staff to be able to handle operational Risk and AML related issues as and when they arise. Management has indicated to every staff how the bank losses monies being part of profit. Risk so every staff is mindful of operational. Risk in discharging their job roles. Yes the Bank has Business-continuity plan. In case of strike actions the management

staffs are bound and are not allowed to go on strike so they will take over business activities whenever there is a strike action.

Nonetheless, the Branch Manager (BM) was quick to say that management staff will effectively and efficiently work, though it has not happened at the Bank. Example, Barclays Banks Senior Staff and bound Staff were taken over business activities when their staff were on strike and as a result the whole system jammed such that expatriate came from overseas to fix the problem. That is clear manifestation that there is no (BCP) for human capital. He agreed about the fact that data back up and off site facility are available to the bank. Basel Committee accord has been relevant and good in terms of protecting and securing interest of the customer, safe guarding the shareholder's interest by increasing the capital requirement of banks against customers deposits. It has also helped to strengthen banks' operation in Ghana.

Operational risk management concept have been relevant to the bank in that, Basel accord regulation helps the Bank to save some monies by the way of fines by the industry regulator (BoG) going contra to some of the regulation can even lead to withdrawal of the bank's licenses from operation. Non-performing loans which most of the time causes' the bank to lose money by providing huge amount of monies for provision for Bad and Doubtful debt thereby reducing the banks profit. Effective and efficient operational risk policies put in place helps curbed some of these issues. Adequate Training to staff assist them to be aware to apply due diligence in their day to day job schedule, also applying the concept of KYC policy reduces operational risk.

Know your customer (KYC) concept also put the bank on alert by making sure that it does not engage in illegal business activities.

The bank has not incurred any major loss like what happens in one of the Ghanaian banks where a private security personnel succeeded in stealing an amount equivalent to GHS 3 million from the ATM. The effects are enormous, reduce profit and bring images and reputational issues. Effect on operational risk sometimes collapses banks. Examples of the collapsed banks are Bank For Housing and Construction, Cooperative Bank, BNI Meridian Bank and Bank For Commerce all of them being Ghanaian banks.

Operational Risk also causes most banks to incur losses. Others are just breaking even. Effect of operational risk if it is not manage properly, reduces investor's confidence, investor's trust and share capital. One of the business unit head emphases that, the forms of operational risk are fraud, pilfering, and legal issue against the bank, ATM frauds, internet banking issues, high labour turn over, mismanagement, misappropriation, inefficiencies, incompetency, ineffectiveness and inexperience. The source of operational risk includes inadequate internal and external controls; internal controls, mist postings, not following rules and regulations, policies and procedure not properly adhered to, network failure, burglary, theft, floods, fire, and improper storage of backups (BM). In the case of the internal, thus the people, the cause may be from the beginning of the staff recruitment process.

The inability to recruit the right caliber of personnel to occupy the right positions, persons who are not qualified, persons who are not competent,

persons who are not efficient as well as persons who are not experience. (five percent of the staff can steal) and persons who have no characters and skills for instance there was scenario where after the day's work had balance a unit staff fraudulently debited a customer's account took the money without a voucher, months later the customer came to lodge a complaint, that day's voucher was called for but to no avail. Staffs at department were taken to the police station to write statement and were detained over a night. Later IT department team were dispatched from Head Office who uncover the situation the staff involved was sacked and the supervisor on duty on that day was transferred to another branch. (Business Unit manager).

Operational risk is a cultural issue because it cannot be retained by the executives of the bank that is the reason for all inclusive training programmes to educate all members of staff (General Managers) policy on controls must be clearly defined and strictly adhered to. Policies and controls should be revised from time to time to suit the current economic and financial fraud situation in the country. This should be applicable to both internal and external policies and controls (Branch Manager).

Touching on motivation, motivate staff is a happy and productive worker. Dedicated staff should be rewarded either in cash or kind. In the absent of properly laid down motivation system, some members of staff may resort to all manner of practice that may translate to operational risk. It is therefore imperative that, in managing operational risk, proper motivational system be put in place. In this bank, performance bonus is tied to operational risk

management. System Security where password is individualistic, where staffs' system (machines and computers) has been designed such that the machines goes off itself when it is not in use.

Staff training on operational risk, AML and other regulatory requirement is organized periodically to sensitize staff on the need to manage them. Branch Managers (BM) are trained on Banking operations. The Business Continuity Plan, where all the branches have been provided with back up where in case of disaster the branch activities will be transacted at ease. per the Bank of Ghana (BoG) regulations losses that banks incur as a result of operational risk have been categorized as follows: System interruptions, Execution errors, isputes with authorities, Commercial disputes, Fraud and other criminal activities, Loss of operating environment, pricing of risk assessment errors, Rogue trading.

Operational risk management has been every effective to the bank because when one looks at the figures with the regulator (BoG), there has been reduction as the year goes by (Branch Manager). It is obvious that there have not been any serious issues regarding afore mentioned figures. As a result of operational risk concept the bank has been able to put in place reliable efficient and effective backup system that can be used in case of any eventualities. Operational risk training and other risk related training such as AML has been organized for staff regularly. Again other control mechanism, Auditing cheque confirmation from customers, tellers and staff limits, authorization and keying and validating rights have contributed immensely to reduce operational risk

losses in the bank. As Bank of Ghana regulation and per the Basel accord all banks are to raise minimum capital requirement of GHS 60 million. Raising that minimum capital requirement of GHS 60 million was a little bit an issue, looking at the fact that monies could have been used in granting loans that generate a chunk of profit for the bank (BM).

Operational risk is a multidimensional and diverse or sundry issue because everything done at the bank, the cheque clearing system, foreign transactions, cash management system, treasury management, loans system, deposit mobilizations and others.

Management of Operational Risk at the Top/Corporate Level

Operational Risk has been defined by the Basel accord and the banks as "the risk resulting from inadequate or failed internal process, human error and system failure, or external causes (deliberate, accidental or natural). This definition is also shared among the communities (credit risk, market risk and operational risk) of the selected banks. But the branch managers and the branch staffs tend to perceive operational risk in a narrow manner by over emphasis on transactional risk as per the interview. The phenomenal has attracted the attention of top management of all the selected banks under the study and a substantial amount of resources have been devoted to get it decreased or eliminate it on both the Top Management level and the branch level.

The top management conformed that the increasingly interest in the operational risk is as a result of regulatory requirement, compliance and radical

changes in the industry (BM) changes such as IT developments and other trends within the industry. In the recent times, as a reaction to the financial losses and image or reputational damage that faced banks which has been argued mostly that it is the resultant effect of operational risk because other risk (credit risk, market risk and legal risk) are passed on to the clients. Operational risk management practices are in the spot light of the selected banks as Top management risk aversion. As part of increased in risk aversion, operational risk management can be considered as one of cardinal core activity of the banks. As it has the potency to elude profits and gains of the banks.

Again in reducing operational Risk means that spending money to set up new framework new procedures and new control measures. For operational Risk management at the corporate level, all the selected banks have the six similar key principles that set up the foundation of operational risk and other risk related activities, per the interview conducted. They are:

1) Risk are consolidated and assessed at the top level;
2) All employees are involved in the operational risk management,
3) Top management is accountable for operational risk
4) Operational risk management is monitored by an independent Department which report directly to the Chief Excusive Officer or the Managing Director,
5) Operational risk information is disclosed ,
6) A cost beneficial analysis is always carried out before taking remedial action.

As part of the overall operational risk management framework at the cooperate level, all the selected banks have in place a global training programme with the main objective of promoting operational risk awareness across the organization. The training programme which is resource- Intensive is characterized by improving operational risk policies to be able to address the product suitability of the bank. The programme as stressed throughout the interview is done through in-service training and courses, operational risk policies and procedures and review of business practices that promote clear risk governance, accountability and control. The programme throughout the interview, come up clearly, that operational risk awareness had gone down well with all the employees of all the selected Banks.

Operational risk is very important to the Top Management; it really concerned them and it is not something they will close their eye on (GM - Operational Risk Department). It also came to light during the interview that, operational risk management is included in the individual appraisal and assessment such as "I will strictly comply with the risk policies relevant to my job role. I will record all mandatory information and update it regularly". In some of the selected bank the variable employees' compensation (bonus) is dependent on management of operational risk on their individual performance evaluation. No wonder that, employees are concerned with operational risk best practices.

Operational Risk Management at the Business and Retail Level

In the mist of the interview, it come light that the entire selected bank

operates two independent Division thus, business or cooperate banking and Retailing banking. This was possible under the bank of Ghana universal banking Act (Act 2004) the business units has four cardinal functions to perform in the management of operational risk namely, Identification, Assessment or evaluation, Response and Reporting of operational risk.

It is important to note that operational risk management practice are more of informal than as it has been formally suggested in the policies and procedures of the bank. Operational risk managers go beyond their official responsibilities through a set of unstructured interactive. For example whenever business banking units or the retail banking units encounters an operational risk issue that might be faced by another department or units, such units or department is contacted to put measures in place. While this might appear as a common sense, the example highlights the limitations of operational risk management practice through policies, procedure and regulation of the bank Branch Manager. When it comes to operational risk, internal policies only represent the tip of an iceberg of our operation branch manager.

Identification (Branches and Business Units)

Identification process starts with the Operational Risk Taxonomy (ORT). The ORT establishes the universe of inherent material of operational risk on an event based category.

The risk identification process takes place at the various branches of the selected banks. At the each branch level, the top management has appointed a

staff known as an operational risk Ambassador to take up operational risk activities at the branch and inform the Operational Risk Management Department (ORMD) at the headquarters (HQ). The ORMD is being described as the entry point which handles all operational risk related issues. Whenever there is an operational risk issue, whether it has materialized or about to, the branches must inform the ORMD for an advice and guidelines. Throughout the interview with the branches**,** business department and offices responsible for operational risk, Transactional Risk, Cross-firing risk, product suitability risk, the identification of operational risk as reinterpretation of what outlined in the Basel ll emerged as the most important risk for the branches and the business unit. It must be emphasized the ORMD staff are very supportive, extensive and ready to give quality advice at all times "Talking to them on operational Risk issues is perfect and relief, it facilitate the interactions, as a branch manager and feel free to call them or send them e-mail whenever the need be. Operational Risk Management Department (ORMD) really helps, they understand our need for business, and they motivate you to talk to them whenever there is an issue.

Evaluation/Assessment

Once operational risk has been identified, their assessment is based on it implication on the bank, severity and frequency. The severity of an operational risk is ideally defined on its financial consequences; however, this is always not the case. The evaluation of implication, severity of operational risk might be based on an estimation of the reputational damage or regulatory sanction that

might be inflicted on the bank. (SG-Ghana Annual Report, 2010). The assessment of the types of operational risk faced by the selected banks is carried out by the branches and the business unit department with the support of ORMD.

For the purpose of the study, the analyses under the risk evaluation will be focused on the risk dashboard and the Transaction Processing Risk. Per the interview discussion, the is an operational Risk Evaluation tool which seeks to collate all the operational risk activities that faced the branches. In every risk category the branch is supposed to record the identified risks, described and assess them. One thing that came up during the study is the absence financial indicator (a toll used to quantify risk or risk measurable feature) in the selected banks. In the absence of financial indicator, what makes the branch managers and risk ambassador's task of assessing (quantifying) risk difficult is the absent of measurable features. On the other hand, some of the banks had easily quantifiable metrics that lead to clearly identification of financial events (losses or gains). For example Transactional risk can be monitored through the volumes of trade and the number of activity business performed by the branches.

Additionally, transactional risk has clearly quantifiable reputational and economic consequence. It also worthy, to note that, no matter how good the institution maybe risk is part of the business. As financial events occur, they are recorded in a database. The inputs are consolidated by a higher control function in the ORMD and shared back with the branches and the department. The data base provides the detailed information of how the financial event occurred and

which remedial actions have been taken. The financial event that takes place in the branches and other Departments are usually not discussed and as a rule, managers do not share such details with employees because of the image and reputational reasons.

Responses

Once the RD is filled out, a higher control function is performed by the ORMD to consolidate the risks of all department and branches. For each risk category, the consolidated risk assessment is matched against the risk appetite of the bank. The ORMD then establishes whether the current risk exposure is below, the line, or above the agreed risk appetite set by the management. The consolidated analyses is again shared back with the department and the branches that serve as guidelines and sense of urgency for each specified risk that branch and department faced. On the bases of Operational Risk Responses, the ORMD would have to determine whether the responses should be mitigated or accepted and communicate to the top management. If the risk is to be accepted, a dispensation has to be requested. On the other hand, if the bank decides to mitigate the risk, an action plan is defined as mitigation issues are mostly concerned with policies amendments.

Reporting

The last has to do with communicating the risk to stakeholders and

assessing the reliability of the risk practices. The control function is normally performed by the ORDM, compliance and Internal Audit. The understanding of operational management was brought to bear in Table 4

Table 4: Understand Operational Risk in bank

Items	To a Very Large Extent N(%)	To a Large Extent N(%)	To a little Extent N(%)	To a Very Little Extent N(%)	Not At All N(%)	Total N(%)
OR, primary risk in banks	62(34.4)	75(41.7)	32(17.8)	7(3.9)	4(2.2)	180(100)
Risk of loss from inadequate events	91(56.7)	29(16.1)	17(9.4)	9(5)	23(12.8)	180(100)
OR is a regulation from BoG	40(22.2)	87(48.3)	33(18.3)	17(9.4)	3(1.7)	180(100)
OR can be used to generate profit	32(17.8)	33(18.3)	75(41.7)	26(14.4)	14(7.8)	180(100)
OR is one sided concept	23(17.8)	37(20.6)	87(48.3)	20(11.1)	3(7.2)	180(100)
OR is considered diverse and multidimensional	75(41.7)	63(35.0)	31(17.2)	7(3.9)	4(2.2)	180(100)

Source: Fieldwork, 2014

The respondents were asked about the definition of operational risk and how they understood. The findings were shown in table 4 above. It reveals that 102 (56.7%) of the respondents agreed to very great extent to the statement that operational risk is a risk of losses resulting from inadequate or failed internal processes or from external event whiles 9 (5%) replied not at all to the statement. Majority of the respondent agreed to the operational risk definition which is in line with the Basel accord definitions.

The second statement in Table 4 recorded 75 (41.7%) of the respondents

who choose a very large extent to the statement that operation risk is a primary risk whiles 4 (2.2%) choose not all to the statement. The result shows that the majority of the respondent agreed to the statement which is in line with (Hussam 2000; Charmebai, 2007).

Table 4 again, revealed that 87 (48.3%) of the respondents opted for very large extent whiles 3 (1.7%) opted for not at all" to the statement operational risk is a regulation from BoG & Basel I, II, III which is in agreement with the Basel accord. The respondents were asked to indicate whether operational risk can be used to generate profit. 75 (41.7%) indicated to a very large extent to the statement, this means that majority were of the view that the factors that cause the operational risk (especially the internal factors) can be used to generate profit whiles 14 (7.8%) also indicated not at all".

The findings of the study shows that majority of respondents agreed to the statement, this is in consistent with the study by (Moosa, 2007) that the element that breeds operational risk is also used to generate profit or gains when the respondent were asked to indicate if the operational risk is one sided concept. Table 4 reveals that 87 (48.3%) of the respondent agreed to large extent" whiles 13 (7.2%) replied not at all to the statement. The outcome of the study indicated that majority of the respondent agreed that to large extent operational risk concept is not one sided.

According to Moosa (2007) there is absolutely no doubt that viewing operational risk as a down sided or one-sided is erroneous on the issue of operational risk is considered as diverse and multidimensional. Table showed

that 75 (41.7%) of the respondent agreed to very large extent whiles 4 (2.2%) of the replied not at all to the statement that operational risk is diverse and multidimensional. The feedback from the respondents is in consistence with (Milligan, 2004; Buchelt & Unteregger (2004).

All of the selected banks virtually adopted the definition of operational risk aligned with the BCBS (2206). This confirms the wide range usage of the operational risk definitions provided by the regulator (BoG) per the Basel accord. Even though, the definition has gain prominence in the selected banks, only the employees of the risk community was conversant with it. This means that operational Risk understanding would have to be improved. In line with the literature (Hussain 2000; Chernobai, 2007), evidence was found that, due to the dynamism nature of the financial institution and compliance of the regulator (BoG) all of the selected banks are concerned with operational Risk. In the recent times, managing operational risk can be considered as part the cardinal activities of the banks (Internal Document 2012).

Firstly, operational risk is being considered as diverse and multidimensional (Milligan, 2004; Buchelt & Unteregger, 2004) per the date collected the risk taxonomy of the selected banks is made up of 8 categories of operational risk event and 49 subcategories and in all the diversity feature of operational Risk manifested throughout the interview discussion with the branch managers, business unit officers and the other staff. The case that operational risk lacks a financial indicator (De Kokor, 2006) was confirmed. The branch manager emphasized the lack of quantifiable data. It can therefore

be concluded that operational losses are characterized by a fat tail distribution (Charnobai, 2006). Another vital issue regarding operational risk management is a cultural issue which cannot be retained by management (Buchelt & Untereggor, 2004). This was confirmed by the launch of a universal training programme that aimed at promoting operational risk culture awareness and that each employee is responsible for operational risk.

The evidence gathered revealed that operational risk is diverse, it lacks a financial indicator, it is heavily tailed distribution and can be considered a cultural issue. Though, the indigenous feature is rejected. It is important to note that two out of the three main risk factors that face the selected bank, thus cross firing and product suitability risk entail a prevailing component that emanate from the external control of the banks (BoG or Regulatory Compliance).

Additionally, the numerous natural disasters that have taken place around the globe should remind financial institution in a very sad way that operational risk can be emanated from the external environment.. For instance they could make it mandatory to have procedures and control mechanisms for each activity performed by the bank. That is not done because the opportunity cost of such action will be very high . Operational Risk is easier to understand as one-sided risk (Moasa, 2007) and because managers are paid for managing it rather than defining it, they are not concerned with it conceptual definition. However, further research is required to define it properly the discrepancy between their statement and their actions.

This inconsistency could be clarified by approaching the analysis of

managerial behavior through the lens of the bounded rationality theory (Herbat, 1955). The study was carried out at a business units and branches of the selected banks that are faced with operational Risk. But as discussed in the literature review from theoretical perspective, there are more arguments for which were rejected than accepting for the features.

Independence of Operational Risk (OR)

Table 5: Independence of operational risk management in the selected Banks

Items	Strongly Agree N(%)	Agree N(%)	Disagree N(%)	Strongly Disagree N(%)	Neutral N(%)	Total N(%)
Culture as OR issue	63(35.0)	78(43.3)	17(9.5)	22(12.2)	0(0.000)	180(100)
OR Mgt as business acty	75(41.7)	51(28.3)	21(11.7)	29(16.1)	4(4.2)	180(100)
Employees as source of identification of OR	70(38.8)	53(29.4)	41(22.8)	16(8.9)	0(0.00)	180(100)
Mgers have the function of mging OR	85(47.2)	39(21.7)	32(17.8)	20(11.1)	4(2.2)	180(100)
OR ambassadors be allowed to identify assess the risk	42(23.3)	77(42.8)	29(16.1	18(10)	14(7.8)	180(100)
Record all issues relating to OR and report	96(53.3)	52(28.9)	21(11.7)	6(3.3)	14(7.8)	180(100)

Source: Field work, 2014

In Table 5, the issue of should operational risk be considered culture issue was considered 78 (43.3%) of the respondents agreed to the statement that operational risk should be considered as culture issue. Whiles none of the respondent indicated neutrality. This implies that majority of the respondent agreed operational risk should be handled as a culture issued by management

this was confirmed by (Buchelt & Untereggor, 2004).

Again in Table 5 respondents were asked to indicate whether operational risk should be described as a corporate business activity and the findings shown that 88 (48.9) agreed to the statement whiles 5 (2.8%) indicated neutrality to the statement this means that all the selected banks realized the need that operational risk should be considered as a major business activity. On the issue of employees are the key sources of identification 70 (38.8%) of the respondents indicated their agreement to the statement whiles none of the respondent was neutral. This implies that employees are the most valuable asset of the bank when it comes to identification of operational risk management of operational risk.

Respondents were asked indicated the extent to which middle and lower level managers have the basic function of managing operational risk 85 (47.2%) of the respondents representing 47.2% were strongly agreed whiles 4(2.2%) indicated their neutrality. The result confirmed that majority of the respondent support the statement that middle and lower level managers have the basic function of managing operational risk. The statement was in line with BCBS (2011) principle that middle and lower level managers should have the basic role of managing operational risk and not the execution of it management. The respondents were asked to indicate their opinion on the statement operational risk ambassadors are allowed by the BMS and BUMS to properly identify and assess the risk situation at their Branches and Departments 82 (45.6%) opted for strongly agreed extent whiles 15 (8.3%)

indicated neutral to the statement. From the findings majority of the respondent indicated that the operational risk ambassadors at branches and departments are allowed to do their work without interference from their bosses.

On the issue of record all issues relating to operational risk and report 96 respondents representing 53.3% opted for strongly agreed to the issue with only 5 of the respondent representing 2.8% indicated neutral. The result confirmed that more than half of the respondent supported Beggis (2010) that operational risk framework of identification, assessment, response and reporting and monitoring should reflect in the bank's policies and practices.

The (BCBS, 2011) stress the importance of the independence of operational risk management. In all the selected banks' management of operational risk is the responsibility of the Top management however, branches are seen to be managing it practically. Middle and lower level managers have the basic function of managing operational risk and not the execution of its management. (BCBS, 2011) Branch managers base their risk decisions on the analysis carried out by risk ambassadors. One may ask why branch manager cannot be responsible for the risk of the bank. The answer is there will be conflict of interest

It was also observed that the Operational Risk Management department (ORMD) was an independent entity that reports to the MD/CEO. The independence of status of the ORMD is re affirmed at the top hierarchical status and through the actions of the internal Audits, legal and compliance.

Interaction between branch managers and the departmental heads is very important because employees are the key source for the risk identification process (Marshall, 2001). And the business embedded comes as a critical feature for the successful management of operational risk at the branches.

As indicated by the regulators (BoG) the business dependence brings risk that branch manages in agreement with the business units and other departments will focus on revenues. (Bessis, 2010). Therefore, for specific core capabilities, it is imperative to ensure that operational risk managers are also guided by the right visions. Also it is established that the quality of operational risk management does not depend on the corporate risk frame work only but rather on the contribution and motivation of individual staff.

Operational Risk as a Process

Table 6: Operational risk management as a process Banks

Items	Very important N(%)	Great important N(%)	Some important N(%)	Little important N(%)	Not important N(%)	Total N(%

The right caliber of staff	39(21.7)	76(42.2)	34(18.9)	26(14.4)	5(2.8)	180(100)
In-service training	24(13.3)	111(61.7)	29(16.1)	14(7.8)	2(1.1)	180(100)
RS for OR identification	92(51.1)	37(20.6)	31(17.2)	16(8.9)	4(2.2)	180(100)
Indicator to manage OR	97(53.9)	47(26.1)	33(18.3)	3(1.7)	0(0.0)	180(100)
Qualified people to	120(66.7)	25(13.9)	19(10.5)	11(6.1)	5(2.8)	180(100)
Things right the first time	57(31.7)	48(26.7)	66(36.6)	7(3.9)	2(1.1)	180(100)
OR lack financial indicator	107(59.4)	51(28.3)	12(6.7)	8(4.5)	2(1.1)	180(100)

Source : Fieldwork 2014

In operational risk management, the following have been identified in table 6 as issues that will help operational risk management. The respondents were asked to respond to a statement that employing right caliber and qualified staff to occupying sensitive positions. In table 6, 76(42.2%) also indicated very important to the statement that employing right caliber of staff is the key to effective operational risk management whiles 5 representing (2.8%) of the respondent said it is not important. The findings of the study shown that majority of the respondent agreed to the importance of the statement. This was confirmed by Marshall (2011).

The bank could increase operational risk capabilities by employing right people and by Sharing risk information that is currently limited to management. Again 111 (61.7%) of the respondent agreed "to great importance to the statement that strong global in-service training can help to manage operational risk effectively whiles 2 representing (1.1%) indicated not important to the statement. The result implies that given adequate and relevant training to employees will have positive effect on operational risk management

and that was established throughout the interview which was confirmed that an all inclusive training programme on operational risk and other related risk were organized each year. Respondents were asked to answer; instituting rewards system for identification of operational risk will boast the effective management of operational risk.

Indicating their responds to the statement instituting reward system (RS) for operational risk identification 92(51.1) of the respondents said it is of great importance whiles 4 (2.2%) representing of the respondent agreed to not important to the statement. The data revealed that more than 50% of the respondents agreed that if top management will institute a reward system it will boast the moral of the employees to give up their best in operational risk identification. This was confirmed by the selected banks where operational risk management is attached to employee annual bonus.

In Table 6 respondents were asked to indicate their views to a statement that employing qualified people to occupy sensitive position in the bank will help manage operational risk. Responding to the issue 120 (66.7%) representing 66.7% of the respondents indicated "to a very importance whiles 5 (2.8%) indicated not important to the statement. This means the majority of the respondents are of the opinion that by employing qualified people to occupying some sensitive position will help manage operational risk better. This was confirmed by Bessus (2010) that the quality of operational risk management does not depend on the corporate risk framework only but rather on the qualified, contributions and motivation of individual staff.

Furthermore, in Table 6 respondents asked whether managing operational risk is doing things right the first time. The findings revealed that 66(36.6%) responded to some importance while 2 (1.1) responded to not important. This implies that majority of the respondents agreed to the statement that doing things right the first time helps to improve the quality of operational risk management which is in agreement and reflected throughout the interview which also means that the selected bank, in combating operational risk should be put in place the needed measurers, procedures and controls the first time.

Again, in Table 6 respondents were asked whether operational risk lack financial indicators and robust data 107 of the staff representing 59.45% of the respondents agreed to "to a very great extent as against 2 of the staff representing 1.1% of the respondent indicated not at all. This means that majority of the staff agreed to the statement that operational risk lack financial indicator and robust data. This was confirmed by De Kokor (2006) in computing operational losses management is faced with lack of quantifiable date. This also surface in the interview section and the respondent echoed that staff needs an indicator tool that will help them in managing operational risk effectively. They also indicated that a quantitative approach to operational risk management is complicated by lack of indicator.

It is obvious during interview that operational risk management practices could be attributed to so many events, evidence available show that operational risk management is mostly influenced by monetary losses. The

process of managing operational risk can be understood as a sophisticated trial and error process any time monetary loss occurred, and to prevent it from happening again. Policies, manuals and procedures and controls are updated into a more modern and sophisticated system of rules in the bank. Therefore management of operational risk can be seen as a cognitive process where every department of the bank learns from specific events as and when it occurs. It is clear that management reluctance to tighten control procedures stems from efficiency concerns (Marshall, 2001).

However after several losses manifested, top management decided to implement a more sophisticated policy. This is very obvious because even before the financial event takes place, management is aware of the fact that some of the bank's businesses are exposed to transactional risk management needs s justification for the low efficiency of the departments and branches through additional control procedures. As a matter of efficiency the banks must accept that operational risk is part of the business and ought to be managed with all the seriousness. As argued in the most basic financial theory, if the bank was to eliminate all operational risk, shareholders in return for their capital would get the risk free rate. (Elton & Gruber, 1995). Therefore implementing mitigation actions to each potential risk is not an appropriate solution.

Also following (Nocco & Stulz's 2006) strategic rationale, banks have to maintain exposure to operational risk because they are particularly good at managing it (ORMD). Given that the current risk management policies are

solid, the operational risk process reactive stance to loss events that emerges as pragmatic and efficient way of identifying risk. Cognitive processes are hard to be institutionalized into operational risk management best practices.

As argued by Marshall (2001) because not all individual learning is extended to the branches where knowledge is developed. Although individuals learn the most when directly involved with operational risk because it is part and parcel of their annual appraisal. It is suggested that individual sharing their experiences can extend the learning processes to a group. (Marshall, 2001). Therefore the branches could increase operational risk capabilities among its employees by sharing risk information that is currently limited to management. Throughout the interview it was established that operational risk was characterized by bureaucracy (Power, 2004; Power 2007).

This is understandable because the operational risk framework is conceived at the corporate level; its decisions are imposed on the department and the branches. Since bureaucracy is part of each global corporation (Power, 2004) an over bureaucratization of operational risk management process is to be avoided as it hinders the efficiency of the processes (Marshall, 2001). As high lightened by a manager, a risk awareness culture has multiple benefits but also promote bureaucracy across the organization processes. Employees must be encouraged to engage in cover your back activity, getting approval for each single transaction performed from the authorities rather than performing revenue generating business duties.

For instance calling the customer to verify the transaction, reviewing

portfolios. This has serious implication on the bank as the overall functioning of the bank is hindered. Besides the burden of the cover your back principle may bring an over risk awareness to the bank. Any corporation that is over concerned with risk management loose it focus on the core business (Marshall, 2001).

It was also established that the legal and compliance department have head locked the whole bank. This does not urge well for the banks because, even if managing operational risk is considered part of the core activity, resources have to be devoted to those activities that increase rather than avoiding losses. And so if care is not taken management's priority will be shifted to operational risk management and business opportunities might be missed out. In the nut shell, managers must pursue new business opportunities by identifying those projects that generate a positive return and not to priorities operational risk mitigation.

Whiles promoting operational risk culture, practitioners should pay attention not to over emphasis risk (Power, 2004; Power 2007). An appropriate balance between operational risk and business should be pursued. Furthermore, from academic point of view, attempts to analyze the current operational risk management hype through the lens of sociology could be done by applying the new institutional theory developed by Meyer and Rowan (1997) and DiMaggio and Powell (1983). The societal forces that stimulate financial institutions are concern with operational risk and could also provide valuable insight on the problematic of bureaucracy. As argued by (Meyer &

Rowan, 1997) conformity to institutional rules conflicts with efficiency criteria. By getting closer to operational risk management through research, evidence might be found that shareholders' need for operational risk management disclosure is a value of destroying activity.

The researcher attempted to find out how the selected banks were responding to regulatory requirement in managing operational risk.

Table 7: Regulatory Requirement of Operational Risk Management

Items	To a Very Large Extent N(%)	To a Large Extent N(%)	To a little Extent N(%)	To a Very Little Extent N(%)	Not At All N(%)	Total N(%)
Bank provided capital requi'nt	120(66.7)	50(27.8)	10(5.0)	0(0.0)	0(0.0)	180(100)
Bank share with other banks best practice	82(45.6)	48(26.7)	35(19.4)	15(8.3)	0(0.0)	180(100)
OR by independent dept	81(45.0)	63(35.0)	32(17.8)	4(2.2)	0(0.0)	180(100)
OR structure must disclose	98(54.4)	42(23.3)	16(8.9)	5(2.8)	19(10)	180(100)

Source: Fieldwork, 2014

On the issue of whether the bank has successfully met the minimum capital requirement 120 representing 66.7% of the respondents opted for to a very large extent that the banks have successfully provided for the minimum capital requirement. While none of them choose "not at all". This implies that the selected banks have kept faith with Basel committee minimum capital requirement which in Ghana the Bank of Ghana has pegged it at GHS 60 million which is in line with the operational risk management procedure. Again

in table 7, 82 representing 45.6% of the respondent choose "to a very large extent" whiles none of the respondent choose "not at all" in respect of statement that the bank share with other banks while other banks also share with the selected banks sound best practice.

In this regard majority of the respondent agreed they share their operational risk useful information with other banks whiles other banks also share their operational risk information with them for the purpose of best practice.

Also 81 representing 45% of the respondents choose "to a very large extent and none of the respondent choose "not at all" to the statement that operational risk is governed by a separate and independent department. Majority of the respondent agreed that the selected banks operated separate and independent department responsible for operational risk management which is in conformity with BCBS (2006) that in order for operational risk management to be effective, individual banks must set up separate and independent department for management of operational risk.

Notwithstanding, 98 representing 54.4% of the respondent choose "to a very large extent" while 5 representing 2.8% opted for "not at all" to the statement operational risk management structures must disclose operational losses at all times. Majority of the respondent appreciated and agreed to the issue that operational losses must be disclosed. This is also in consonance with the BCBS (2006) which make it mandatory that bank in their quest to manage operational risk must disclose all losses emanated from operational risk related

activities.

Table 8: Operational Risk Management Requirement in banks

Items	To a Very Great Extent N(%)	To a Great Extent N(%)	To Some Extent N(%)	To a Very Little Extent N(%)	Not At All N(%)	Total N(%)
Robust IT system	126(70)	40(22.2)	13(7.2)	1(0.06)	0(0.0)	180(100)
Equity ratio with BoG	79(43.9)	66(36.7)	18(10.)	11(6.1)	6(3.38)	180(100)
Liquidity ratio with BoG	69(38.3)	85(48.3)	26(14.5)	0(0.0)	0(0.0)	180(100)
Relevant systematic and dynamic rules	75(41.7)	51(28.3)	21(11.7)	29(16.1)	4(2.2)	180(100)
OR lack financial indicator	87(48.3)	37(20.6)	23(17.8)	20(11.1)	3(7.2)	180(100)

Source: Fieldwork, 2014

On the issue of banks must adhered to robust IT system, 126 representing 70% of the respondent agreed to "a very great extent to the statement whiles none of the respondents indicated "not at all" this implies that the selected banks were adhering to the use of Robust and sophisticated IT system that makes the management of operational risk very accurate, effective and efficient. This confirms the BCBS (2006) that financial institution and for that matter banks in managing operational risk must resort to sophisticated and Robust IT system. This will make it if not impossible difficult for fraudster and thieves to break into their IT system.

According to Table 8, 79 representing 43.9% of the respondents agreed to "a very great extent" to the statement banks must keep 7% equity while 6 representing 3.3% indicated "not at all". This means that the selected banks had

kept to the law BCBS (2006) regulations that banks must keep 7% of their equity fund with BoG with which no bank should not have access to use.

The data further showed that 85 representing 47.2% of the respondent indicated that "to a very great extent to the statement Banks must keep 11% +liquidity with bank of Ghana whiles none of the respondents "not at all". This implies that majority of the respondent agreed that the banks keeps 11% liquidity as prescribed by law (BoG regulation). Liquidity refers to how quick a bank can absorb and settle the number of request issued by their depositors. The law admonished banks to keep 11% of their depositor's lodgments at BoG.

The data again revealed that 75 representing 41.7% of the respondents agreed "to a very great extent" that set of relevant, systematic and dynamic rules, measures and controls be put in place to effectively manage operational risk. While 4 representing 2.2% indicated "not at all". The impression of this result tend to create is that majority of the respondents agreed that in managing operational risk, banks should have in place an effective set of rules and regulations that best fit the modern trend of banking business. This was supported by BCBS (2006) which state that effective and efficient measures, controls and procedure should be structured by banks in pursuit of ORM.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The chapter consists of the summary, conclusions and the recommendations and suggestions for further research. The research was

conducted to assess the effectiveness of operational risk management in banks in Ghana. Evaluation research design method was used to collect data from the respondent.

The main method that was used was qualitative method but quantitative method was also used intermittently. The population was all the staff sof the selected banks' department, division, units and branches. In all, a total 180 staff responded to the questionnaire and interviews. The study revealed the extent of regulations of the regulator (BoG) and the effectiveness of such regulations in the management of operational risk in banks. The research questions asked in chapter one find their answers within the context of the research findings such that the analysis provided a reasonable background of the operational risk management of selected banks in Ghana.

Summary of the main findings of the study

The study revealed that issue of operational risk management seems to have gained the firmest root in Ghanaian Banks. The study revealed among other things that, financial institution see operational risk as first and foremost risk among all the risks and as such consider it as one of the core activity. Going forward, the findings of the research shows that the selected banks adopt the standard definition of operational risk provided by the regulator Bank of Ghana. The Banks has operational risk management departments in place which ensure proper steps are taken in the performance of the duties of the banks.

The evidence gathered led to confirmation of the fact that operational risk is a cultural issue and lacks financial indicator among other things. Also the issued that operational risk is one-sided that was encountered in the literature also came up. It was concluded that from the theoretical point of view with the support of the (OPRD) of the four banks that, operational risk could not be seen as one-sided because that school of thought failed to account for the revenue side of the distribution.

At the corporate level, it was clear that all the selected banks implemented the recommendations outlined by the regulator. It was obvious that the banks approach operational risk from a broad prospective which included several discipline, controls policies and procedures. At the business units and the branches, the researcher noted that understanding operational risk practices through formal way and technical approach provides a limited and distorted understanding of such practice. Through that branch managers have not regulatory guidance or theoretical framework to refer to, and that operational risk management was seen as a programmatic and proactive process.

It was again noted that, operational risk occurs because of several events, evidence shows that operational risk management is influenced by monetary losses. The process of managing of risk is very sophisticated trial and error process whenever monetary loss occurs, then policies, control, manuals and procedures are modified into a concrete system.

But given, that operational risk management policies and procedures are

solid, reactive stance to loss events is programmatic and efficiency way of identifying op risk. The study also shows that the management of operational risk by the branches does not depend solely on the top management, but on the individual employee's contribution and motivation. About the independence of operational risk by the regulators, whiles the independence of branch managers and business units managers who are directly responsible for operational risk management is essential, evidence gathered shows banking activities embedded are critical feature for the successful management of operational risk at (OPRD).

However, the study does not suggest that operational risk management should be activity embedded. Even though such feature had a positive contribution on the banks' activity because other department such as legal, compliance and Internal Audit ensure the independence of overall control of operational risk management. From the study, operational risk framework of the bank is formulated at the top or corporate level, and because of that, its requirements at the business units and branches level are associated to the issue of bureaucracy.

It is suggested that banks should pursue a operational risk awareness culture. It established that banks that are more concerned with operational risk may incur an additional bureaucracy and strategic troubles. In conclusions, operational risk is also a multidimensional and the focus of the regulators (BoG and Basel) is the highest in the management of financial institutions, its appears to be obligation rather than an optional and it was seen in the Academic

literature. Given the diversity and the dynamism of operational risk management, it can be concluded that best practices at the business units and the branches of the banks would most likely to continue to be characterized by the regulatory guidance depending on the environment and areas of operation.

The governing bodies such as the top management, business unit manager and the branch managers have the scope and vision, and the authority to properly hold the responsibility of Operational Risk Management.

Conclusion

Based upon the findings of the study the following conclusion could be drawn.

1. The selected banks were adequately prepared and well resourced and positioned in Operational Risk management.
2. The banks, as part of Basel Committee and Bank of Ghana regulations, have complied with GHS60 million minimum capital requirement.
3. The selected banks used sound and best practice policy, provided sound operational Risk Management environment.
4. The banks have also put in place measures, procedures, policies controls and systems for the purposes of effective and efficient operational risk management.
5. Indeed the banks have again put in place mechanisms to disclose operational losses, a Robust IT system to check internal frauds and failures, have provided seven percent equity requirement and the 11% liquidity

requirement as prescribed by law.

Recommendations

The research revealed that management of the selected banks admitted that operational risk management is part and parcel of the banking operations in Ghana, and therefore "has taken the bull by the horne" to fully implemented almost all the versions of the Basel I, II and III. The study believed that there are some measures which could be adopted to make operational risk management dynamic. It is therefore, recommended that:

a. Top or Corporate Level Management should be in the known of that aspect of the business that is operationally risky and managed, approved and periodically review the operational risk management framework.

b. The framework should lay down the principles of how operational risk management is to be identified, assessed, monitored and controlled or initiated. Operational Risk Management Framework should be subjected to effective and comprehensive internal audit by operationally independent appropriately trained and competent staff.

c. The internal audit should not be directly responsible of operational risk management. The Operational Risk Management Department (OPRD) should report directly to the Managing Director (MD). This will enhance the discharge of the duties of the personnel in the department

d. Banks, at all times should identify and assess the operational risk inherent in all material, products, activities, processes and systems. Banks should also

ensure that all new products, activities are introduced, taking into account the operational risk inherent in them and subject to adequate assessment procedures. This will help prevent unintended side effects and keeps Operational Risk Management active in the banks.

e. The banks should put in place contingency and business continuity plan to ensure that ability to operate on an on-going basis and unit losses in the event of severe business disruption. Banks should have policies, mechanisms, processes and procedures to control and mitigate material operational risk.

f. Banks should periodically review their risk limitations and control strategies and should adjust their operational risk profile accordingly using appropriate strategies which are in line with their overall risk appetite and profile of the bank. This will help maintain control, effectiveness and keep the Operational Risk Management program focused on delivery real value.

Area Further Research

Additional research with increased in sample size should be conducted employing other probability sampling to attain a continuous view, insight and knowledge on effectiveness of operational risk management in banks. Banking is dynamic it would be relevant for further research to be carried out frequently. The result of this study shows that operational risk is effectively managed in the selected banks. Further research using larger sample size in other banks could be undertaken to confirm fully or partially the findings of this study.

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APPENDIX I

UNIVERSITY OF CAPE COAST SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

Questionnaires and interview questions on the topic Effectiveness of Operational Risk Management in selected Banks

Dear Sir/Madam

A study is being conducted on the topic" Effectiveness of Operational Risk Management in selected banks". The research is for the purpose of writing a dissertation as part of the requirement for the award of Master of Business Administration. It would be appreciated if you could provide candid responses to the items in the questioner and the interview. The information you provide would be treated confidential and under no circumstance will your identity be disclosed to any other person with regard to your response to the items.

Thank you very much

SECTION A

Instruction

Please respond by ticking [ ] in the appropriate box or provide information in the space (s) provided

1. Sex (a) male (b) female

2. What category of staff

3. Department/ Division/ Branch. Please indicate

4. Highest educational qualification

(a) HND [ ] (b) degree [ ] (c) Masters Degree [ ] (d) Phd [ ] (e) ACIB [ ] (f) CA/ACCA [ ] (g) CIMA

5. How long have you been working in your bank

(a) 0 to 5 years [ ] (b) 6 to 10 years [ ] (c) 11to 15 years [ ] (d) 16 to 20 years [ ] (e) 21years and above [ ]

6. what is your job role

(a) clerical staff [ ] (b) officer [ ] (c) assistance manager [ ] (d) deputy manager [ ]

(c) manager [ ] (f) senior manager [ ] (g) general manager [ ]

SECTION B

Understanding Operational Risk in banks

The following have been identified as statements that will help to defined the understanding of Operational Risk in banks. In a range of ‘’to a very large extent "to ‘’not at all’’ where;

5…… To a very large extent

4…… To a large extent

3…… To a little extent

2…… To a very little

1…… Not at all

Kindly indicate your agreement with each of the statement by ticking appropriate column.

NO	STATEMENT	5	4	3	2	1
6	Operational risk is a primary risk in banks					
7	It is a risk of loss resulting from inadequate or failed internal processed or from external events					
8	It is a regulation from BOG and Basel accord					
9	Operational risk can be used to generate profit					
10	Operational risk is one sided concept					
11	Operational risk is considered as diverse and multidimensional					

Independence in Operational Risk Management in banks

The following have been identified as bases of independence of Operational Risk Management. In a range of ‘’strongly agreed’’ to ‘’Neutral’’ where;

5…… strongly agreed

4…… agreed

3…… disagreed

2…… Strongly disagreed

1…… Neutral

Kindly indicate your agreement with each of the statement by ticking appropriate column.

NO	STATEMENT	5	4	3	2	1
12	Culture should be considered as operational risk issue					
13	Operational risk management should considered as business activity					
14	Employees are the source of operational risk identification					
15	Middle and lower level managers have basic function of managing operational risk					
16	Operational risk ambassadors are should be allowed to identified and assess the risk situation at branches & depts.					
17	Record all issues relating to operational risk and report					

Operational risk as a process

The following have been identified as some bases for Operational Risk Management process.

In a range of ‘’to a very great importance’’ to ‘’not important’’ where;

5…… Very great importance

4…… Great importance

3…… Some importance

2…… Little importance

1…… Not important

Kindly indicate your agreement with each of the statement by ticking appropriate column.

NO	STATEMENT	5	4	3	2	1
18	Employing right calibre of staff					
19	Strong global on the job and in-service training programme					
20	Institute reward system for operational risk identification					
21	Institute reward system for that will help them manage operational risk					

22	Employing qualified people to occupy sensitive positions will help manage operational risk well					
23	Doing things right the first time					

Instruction

Regulatory Requirement of operational risk management

The following have been identified as statements that will help to defined the understanding of Operational Risk in banks.

In a range of ‘’to a very large extent’’ to ‘’not at all’’ where;

5…… To a very large extent

4…… To a large extent

3…… To a little extent

2…… To a very little

1…… Not at all

Kindly indicate your agreement with each of the statement by ticking appropriate column.

NO	STATEMENT	5	4	3	2	1
24	The bank provided minimum capital requirement					
25	The bank share with other banks sound best practices					
26	Operational risk is governed by separate and independent dept					
27	Operational risk structure must disclose operational losses					

Instruction

Operational Risk Management Requirement in banks (Basel II)

The following have been identified as statements that will help to define the Basel requirement Operational Risk management.

In a range of ‘’to a very large extent’’ to ‘’not at all’’ where;

5…… To a very great extent

4…… To a great extent

3…… To some extent

2…… To a very little

1…… Not at all

Kindly indicate your agreement with each of the statement by ticking appropriate column.

NO	STATEMENT	5	4	3	2	1
24	Banks must possess a Robust IT system					
25	Banks must keep equity ratio with Bank of Ghana					
26	Banks must keep liquidity ratio with Bank of Ghana					
27	Set of Relevant systematic and dynamic policies, rules and procedures					

Section C

Interview Questionnaires

1. How old are you?
2. How many years banking experience do you have?
3. For how long have you been working in your bank?
4. What is your qualification?
5. What is your job role?
6. Have you had any training on Operational Risk?
7. Which area of your work will you consider as operationally risky?
8. Does your bank have business continuity plan?
9. Does your bank have a department responsible for operational risk management and what is their work

10. Which area of your business activities do you operationally consider risky
11. What is your view that operational risk is one sided process and has no financial indicator?
12. In your opinion what is Basel committee accord and how relevant is it to your bank's business activities?
13. How relevant is operational risk management concept to your bank?
14. Please mention the effect of operational risk on your business activities?
15. Please identify the forms and the source of operational risk in your bank?
16. In your view please what are the causes of operational risk in your bank?
17. Kindly mention any measures put in place for the management of operational risk in your bank.
18. To what extent is operational risk management effective in your bank?
19. Has operational risk management concept helped in any way to reduce operational losses in your bank?
20. Has your bank implemented the Basel committee accord and did it encounter any difficulty?