

MAKERERE UNIVERSITY

**OPERATIONAL RISK, RISK ATTITUDE AND ORGANIZATIONAL
PERFORMANCE OF FINANCIAL INSTITUTIONS IN UGANDA**

BY

AKELLO MARTHA GRACE

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**A RESEARCH DISSERTATION SUBMITTED TO FACULTY OF GRADUATE
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PLAN A

OCTOBER 2021

DECLARATION

I, Akello Martha Grace, do hereby declare that this dissertation is my original work and has, to the best of my knowledge, not been published or submitted for any degree award to any other University.

Signed.....

Date.....

AKELLO MARTHA GRACE

2013/HD10/2800U

APPROVAL

This is to certify that this dissertation had been submitted for examination with our approval as University Supervisors.

Signed: -----

Date: -----

Dr. Nkote Isaac Nabeta

Supervisor

Signed: -----

Date: -----

Dr. Nkuutu Geoffrey

Supervisor

DEDICATION

I dedicate this research report to the Almighty God, who always opens opportunities for me, my late mother, brothers, sisters and my daughter who have been there for me through thin and thick.

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I extend my sincere gratitude to my supervisors Dr. Isaac Nkote and Dr. Geoffrey Nkuutu for their time, advice and guidance accorded to me, and never got tired of guiding me and correcting my mistakes and showing me the right way, I needed to complete the dissertation. I will always incline to work with you.

I wish to thank the staff and management of selected financial institutions for the warm cooperation you accorded me during data collection process. Thanks to all the respondents for the cordial responses to the questionnaires. May the Lord reward you and may you remain blessed ever after.

I also wish to recognize the support of my family for always encouraging me and supporting me financially and morally.

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ABSTRACT

The purpose of this study was to investigate the relationship between operational risk, risk attitude and organizational performance of financial institutions in Uganda. This study took a cross sectional research design where a sample of 60 financial institutions was selected for the study. Primary data was collected using the questionnaire. Data was analyzed using SPSS (22) package and a correlation, and regression analysis were carried out.

Findings revealed that there was a significant and positive relationship between operational risk, risk attitude and organizational performance. The results further revealed a positive and significant relationship between operational risk and risk attitude. Results from the regression analysis showed that operational risk and risk attitude significantly predicted 0.311 of organizational performance of financial institutions. The study recommends for improvement in operational risks among financial institutions and this would improve organizational performance more than risk attitude. The study further recommends updating and upgrading of internal processes, systems and people within the financial institutions

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to the BCBS (2004) operational risks are the risks of the loss coming from a failed or an inadequate internal process, system, people or sometimes external events. The definition comprises of legal risks and excludes reputation and strategic risks. The explanation provided by BCBS (is a breakdown of four causes of operational risks in a financial institution: processes, people, and system and external events. Cummins et al. (writes that one of the most significant and perfect examples of operational risk in a financial institution was the \$1.3 billion loss that Barings Bank incurred. The loss was caused by a single individual, Nick Leeson, who assumed an unauthorized speculative position and made the bank to accumulate losses until it was declared bankrupt in 1975 continually. Nystrom (2002) contends that operational risks are not unique for financial institutions and nowadays, there is an increasing global need to manage operational risks. Financial institutions across the globe are developing risk management systems, and most of them are trying to achieve efficiency in risk management and reallocation. In Africa, banks operate in a very volatile and competitive industry facing numerous financial risks every day. This is not to mention the continuously evolving stakeholder needs and preference, continued political instability in very many African states, technology, fraud and system flaws quick example is the hack incident that happened on 3rd October, 2020 when unidentified hackers broke into the systems of Pegasus Technologies, a company that integrates mobile money transactions between telcos, banks, and other local, regional, and international money transfer services, making off with a yet to be known sum, but said to be in billions of Shillings (ceo.co.ug¹).

The Ugandan financial sector consists of a range of financial institutions but remains dominated by commercial banks and Microfinance institutions. According to World Bank (2018), the reformation of Uganda's financial sector has not helped address the challenges of risk management and attitudes which has undermined the performance of the sector. For instance, BoU supervision report (2017) indicated that six banks, with a combined 4.7 percent share of the banking industry total assets, made losses in 2017 and credit institutions' asset quality had deteriorated with non-performing loans increasing by 2.9 percent from US\$10.5 billion as at the end of December 2016 to US\$10.8 billion as at the end of December 2017.

¹ <https://www.ceo.co.ug/hackers-break-into-mobile-money-system-make-off-with-unspecified-billions-belonging-to-airtel-mtn-stanbic-and-other-financial-institutions/>

Further, the AMFIU Report (2016) showed that the unfavorable risk perceptions and behaviours had a negative effect on performance of MFIs. While, the BOU Annual Supervision Report (2015) showed that there was steady increase in credit risk in commercial banks due to the rise in lending rates from 20.4% to 24.3% affecting borrower's ability to service loans. Owing to the practical gap highlighted above, it is suspected that lapses in operational risk and risk attitude could be the cause of a soaring problem of organizational performance in financial institutions.

Upadhaya, Munir & Blount (2014) assert that the survival of financial institutions depends on successful organizational performance that is dependent on operational risk. According to Barakat *et al.* (2018), through effective operational risk frameworks, financial institutions are able to implement matters profitably and efficiently and also avoid risk that may fall on the organizations. Therefore, operational risk analysis and management continue to be a major feature of management in an attempt to deal effectively with uncertainty and unexpected events and to achieve organisational performance.

Young (2012) opines that the failure to manage operational risk continues to affect financial institutions leading to some failing and others experiencing financial distress. According to the utility theory, different risk attitudes are classified into risk-averse, risk-neutral and risk-seeking. Individuals having different risk attitudes behave differently to maximize their own utilities, not to maximize expected monetary value as propounded by expected value theory. Where the risk attitude adopted is not conducive to effective organizational performance action is required to modify attitude.

1.2 Statement of the Problem

In order to ensure that financial institutions avoid a systemic financial crisis, bank of Uganda carries out an annual analysis and assessment of the structure and vulnerability of Uganda's financial system. Despite all these assessments by BOU, there has been persistent decline in the organizational performance of financial institutions over the years. For example financial institutions registered reduction in profits, ROA and asset quality due to rising loan arrears, bad loans and declining loan portfolios (Bank of Uganda stability Report 2017). Further, six banks made losses in 2017, credit institutions' assets quality had deteriorated with non-performing loans increasing by 2.9 percent from USH 10.5 billion in 2016 to USH 10.8 billions in 2017 (BoU Supervision report 2017). This therefore compelled the researcher to

investigate whether poor financial performance of financial institutions in Uganda could be attributed to poor operational risk and risk attitude practices.

1.3 Purpose of the Study

The study examined the relationship between operational risk, risk attitude and organizational performance of financial institutions in Uganda.

1.4 Objectives of the Study

- i. To examine the relationship between operational risk and organizational performance in financial institutions in Uganda.
- ii. To examine the relationship between risk attitude and organizational performance in financial institutions in Uganda.
- iii. To establish the combined effect of operational risk and risk attitude on organizational performance in financial institutions in Uganda.

1.5 Research Questions

- i. What is the relationship between operational risk and organizational performance in financial institutions in Uganda?
- ii. What is the relationship between risk attitude and organizational performance in financial institutions in Uganda?
- iii. What is the combined effect between operational risk and risk attitude and organizational performance in financial institutions in Uganda?

1.6 Scope of the Study

1.6.1 Subject Scope

The study focused on the relationships between operational risk, risk attitude and organizational performance in financial institutions in Uganda. In study, operational risk and risk attitude were the independent variables whereas, organisational performance was dependent variable.

1.6.2 Geographical Scope

The study was carried out at the headquarters of all financial institutions in Kampala district. These included all commercial banks, Micro Depositing Institutions (MDIs) and Microfinance Institutions (MFIs) that have carried out business for a period exceeding 5 years in Uganda's financial sector.

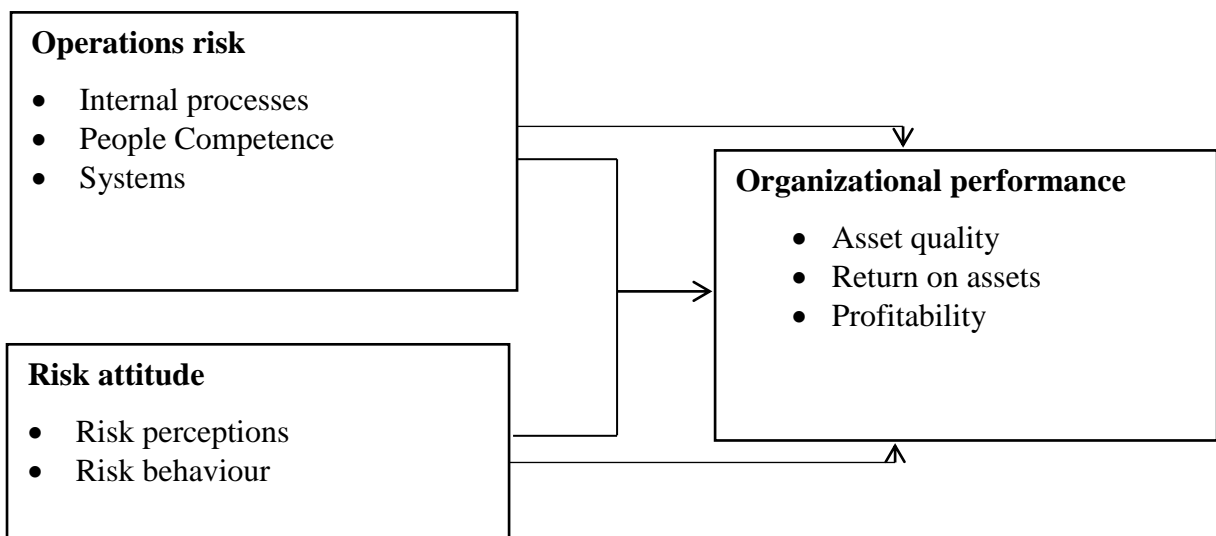
1.7 Significance of the Study

- I. The study findings identified problems and made recommendations on how organizational performance can be improved in financial institutions. In the study, ways of effective and operational risk and risk attitude are suggested.
- II. The study findings are expected to offer vital information to the financial sector stakeholders such as the Bank of Uganda, the Ministry of Finance, commercial banks, other financial institutions and Parliament for use in the formulation of guidelines and regulations, for proper monitoring of risk and in setting of governing laws. This could be done through reviewing the existing risk management policies and regulations and putting in place tough measures in the sector.
- III. The study findings also add to the existing knowledge on the association between operational risk, risk attitude and organizational performance in financial institutions.

1.8 Conceptual Framework

The model shows the relationship between the variables under investigation/study. The model shown in the figure 1.1 below shows the relationship between operational risk, risk attitude and organizational performance. The independent variables are operational risk and risk attitude with organizational performance as the dependent variable. The model shows that operational risk and risk attitude influence organizational performance.

Figure 1.1: Conceptual Framework



Source: Al-Tamini (2008); Eckles et al. (2014); Al-Dhaafri et al. (2016).

Description of the model

The above framework provides a theoretical flow of the study variables. From the framework, the dependent variable is organizational performance whereas; the independent variables are operational risk and risk attitude. Organizational performance is the variable of interest in which the variance is attempted to be explained by operational risk and risk attitude. According to the study, operational risk are measured as internal processes, people and systems; risk attitude was measured according to risk perceptions and risk behavior whereas, organizational performance was conceptualized according to profitability, return on assets and asset quality. As presented in the model above, it is expected that organizational performance of financial institutions improves when there is adequate operational risk which supports a positive risk attitude in the institutions. Whereby, absence of operational risk in the institutions may result into poor organizational performance. It can be deduced that operational risk and risk attitude promote the sustainable organizational performance of financial institutions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the existing literature on operational risk, risk attitude and organizational performance as discussed by different authors. It brought out the appreciations of what has been done on the variables under study but also, the gaps that were identified in the existing body of literature that makes the focus of this study.

2.2 Theoretical Review

Different scholars have designed several theories to explain risk management in the financial sector. This study analyses some of the risk management theories studied by various scholars. According to Benstock and Cegla (2017), extreme value theory (EVA) is a branch of statistics dealing with the extreme deviations from the median of probability distributions. It seeks to assess from a given order sample of a given random variable, the probability of events that are more extreme than previously observed. The financial industry including banking and insurance is undergoing major changes. The reinsurance industry is increasingly exposed to catastrophic losses for which requested cover is only available. An increasing complexity for financial instruments calls for sophisticated risk management tool. This theory expands the knowledge of risk management as it indicate the securitization of risk and alternative risk transfer highlight the convergence of finance and insurance at the product level. Extreme value theory plays an important methodological role within risk management for insurance, reinsurance and finance.

Mascia and Morena (2018) put forward the regulation innovation theory. They argued researching financial innovation from the perspective of economy development history. And they thought financial innovation connects with social regulation closely, and it is a regulation transformation which has mutual influence and is mutual causality with economic regulation. They thought that it is very difficult to have space of financial innovation in the planned economy with strict control and in the pure free-market economy, so any change led by regulation reform in financial system can be regarded as financial innovation. The Omni-directional finance innovative activities can only appear in the market economy controlled by government. When government's intervention and the management have hindered the finance activities, there will be many kinds of financial innovation which intend to circumvent or get

rid of government controls. In this theory which expanded the scope of operational risk, government activity is also regarded as the origin of financial innovation. But it regards regulation innovation as one part of financial innovation which put more concern in operational risk in banks. Especially, it regards rules and regulations which are used to control as financial innovation.

2.3 Organizational Performance

According to Faupel and Michels (2014), it is possible for a firm to overcome all the risks and realise the desired performance level. Organizational performance means the transformation of in-puts into outputs for achieving certain outcomes. From this perspective, successful organizational performance can be equated to successful value creation for common stockholders (Al-Dhaafri, *et al.* 2016). As a consequence, the essence of performance is the creation of value. Organisational performance is measured according to profitability, liquidity, asset quality, return on investment and growth. It is through the generation of a profit that an organization can be able to provide a return to providers of equity capital, once the profits have been converted into liquid assets (Al-Dhaafri, *et al.* (2016). In the absence of profits or the likely prospect for profits, equity capital providers will withdraw their resources from an organization and redeploy them to alternative investments where a positive return can be realized. The ability for a company to consistently make a profit, or a surplus of revenues over expenses is critical to the survival of an organization (Jaca and Psomas 2015).

Growth has long been considered a critical and distinct component of organizational performance. Amaya *et al.*, (2015) argued that a firm's ability to maintain or increase its sales level and market share in hostile environments, where there is increasing competition from both domestic and foreign firms, is a generally-accepted performance indicator of short-term survival and adjustment. In essence, the assets owned by a company are liquid if they can quickly and cheaply be converted to cash (Kolapo, Ayeni and Oke, 2012). The critical performance issue relative to liquidity is whether the organization has or is developing enough readily accessible capital to continue to operate. Liquidity can be measured in both absolute and percentage terms. An example of an absolute measure of organizational liquidity is working capital, or the excess of current assets over current liabilities. Another absolute measure of liquidity is the interval measure, which represents the length of time the organization can continue to operate using its liquid assets, without making any further sales

(Amaya *et al.*, 2015;). Return on Investment (ROI) is arguably one of the most popular metrics and ROI analysis is a powerful tool in making informed decisions ((Al-Dhaafri, *et al.* . 2016). ROI is a performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments.

2.4 Operational Risk

According to Bromiley and Rau (2014) an operational risk is, as the name suggests, a risk arising from execution of a company's business functions. It is a very broad concept which focuses on the risks arising from the people, systems and processes through which a company operates. It also includes other categories such as fraud risks, legal risks, physical or environmental risks. Operational risk is perhaps the most significant risk organizations face (Young, 2012). Yet, in spite of this huge investment, for many firms developing a viable operational risk (ORM) program remains an elusive goal. A lot has to do with the way organizations have approached this problem and the underlying assumptions they have made. Many financial firms believe that operational risk is not a material risk but a form of edge over competition (Stulz, 2013). This can be seen in the low capital charge allocated to this risk relative to other risks. Many view operational risk as just back-office operations risk, and executives generally believe that ORM is fundamentally about managing control weaknesses in the processes at a tactical level (Young, 2012).

These views have largely shaped the funding and staffing decisions, which have in turn affected resource allocation and methodology development. The recent wave of losses in the financial services industry has forced many senior executives to rethink their overall approach to risk management. Many now realize that operational risk is a much more important risk than it was originally thought to be (Michael, 2015). Operational risk is manifested in the form of mistakes, incompetence, criminal acts, qualitative and quantitative unavailability of employees, failure of technical systems, and dangers resulting from external factors such as external fraud, violence, physical threats or natural disasters as well as legal risk especially among the financial institutions (Stulz, 2015). However data and measurement of operational risk are key challenges to its management. A survey conducted on twenty two Indian banks indicates insufficient internal data, difficulties in collection of external loss data and modeling complexities as significant impediments in the implementation of operational risk framework in banks in India. There is therefore a need for a strategic approach to manage risk so as to mitigate losses (Amaya *et al.*, 2015).

2.5 Risk Attitude

If risk is defined as an uncertainty that could have a positive or negative effect on one or more objectives, and attitude is defined as chosen state of mind, mental view or disposition with regard to a fact or state, then combining the two gives a working definition of risk attitude as chosen state of mind with regard to those uncertainties that could have a positive or negative effect on objectives, or more simply chosen response to perception of significant uncertainty (Gamba and Triantis, 2014). A range of possible attitudes can be adopted towards the same situation, and these result in differing behaviours, which lead to consequences, both intended and unintended. Indeed behaviour is the only reliable diagnostic indicator of inner attitude, and considerable attention has therefore been paid to behavioural psychology and management by those seeking to understand and manage the effects of human factors in business (Bonsang and Dohmen, 2015).

According to Wang *et al.*, (2013), although attitude manifests itself through behaviour, there are other drivers of behavior which can displace the chosen or preferred attitude. The extent to which this occurs depends on the perception of the situation towards which the attitude is being directed. Ng *et al.*, (2016) contends that although the responses to positive and negative situations suggest at first sight that environment or situation is the prime determinant of behaviour, in fact it is how the environment is perceived by each person, since a situation that appears hostile to one may seem benign to another. This raises the question of what influences behaviour when the situation is uncertain. In this case the important driver of behaviour is whether uncertainty is perceived as favourable, neutral, unfavourable or hostile (Schultz and Schultz, 2017). This reaction to uncertainty is risk attitude, defined above as chosen response to perception of significant uncertainty. And since attitude drives behaviour, different people will exhibit different responses to the same situation, as a result of their differing underlying risk attitudes a situation regarded as too risky by one person will be seen as acceptable by another (Cobb-Clark and Schurer, 2013).

2.6 Operational risk and Organizational Performance

Operational risk is the activity which comes under organizational management and now a day it is gaining importance due to globalization and increased competition. Operational risk has grasped a new variety of multiple risks and risk measures over the last ten years. Therefore, how to deal with risks and how to understand their nature became the organisations' first priority. For instance, Ko, Lee & Anandarajan (2019) indicated that the higher level

of operational risk incidents is linked to higher likelihood of credit default and to poorer performance. While, Rahim, Ahmed, Sarkawi, Jaaffar & Shamsuddin (2019) revealed that components of operational risk, namely practice of hazard identification and formulation of implementation of risk control, have negative and significant relationships with customer complaints. Meanwhile, Bromiley *et al.*, (2014) postulates that it became evident that risk was considered as one of the primary threats that, if dealt properly, could turn out into an opportunity. Young (2012) found that operational risk is still at its infancy and risk management practices are used more when the level of risk in project is high and the usage of these practices were only to meet time and budget goals. The operational risk process consists of a series of steps which are establishing the context, identifying, analyzing, assessing, treating, monitoring and communicating risks, which allow continuous improvement of decision-making.

Young (2012) concluded operational risk as a daunting task for organizations and it could be made successful by motivating the individuals. Organizations that implement effective operational risk become successful while others not practicing this activity proved to be unsuccessful. The general financial theory believes that the higher the risk, the higher the returns (performance). Scholars have found out that returns on the banks' stocks appear to be sensitive to risk management capability of banks. Further, highly leveraged microfinance institutions perform better by reaching out to more clientele, enjoy scale economies, and therefore are better able to deal with moral hazard and adverse selection, enhancing their ability to deal with risk. However, higher risk threatens the long term survival of the bank, (Michael, 2015). Equilibrium between risk and return must be maintained through Recognition of both the potential value of opportunity and the potential impact of adverse effects. As an approach to risk management, the Capital Asset Pricing Model, suggests elimination of unsystematic risk through diversification and investors rewards should be based on systematic risk.

The researcher is of the opinion that since operational risk cannot be eliminated completely through diversification, it can be categorized as systematic risk and has to be managed effectively. From the review of literature on operational risk and organisational performance, many studies have been conducted on these two subjects in the public and private sector. However, much of the reviewed literature is centred on developed countries and little or no research has been carried out on the subject in developing countries such as those in Africa

where area of operational risk in its advance stages and highly dominated by public management. In order to close this literature gap, this study will establish the relationship between and organisational performance on financial institutions in Uganda.

2.7 Risk Attitude and Organizational Performance

A range of possible attitudes can be adopted towards the same situation, and these result in differing behaviours, which lead to consequences, both intended and unintended. Indeed behaviour is the only reliable diagnostic indicator of inner attitude, and considerable attention has therefore been paid to behavioural psychology and management by those seeking to understand and manage the effects of human factors in business (Cobb-Clark & Schurer, 2013). Although attitude manifests itself through behaviour, there are other drivers of behaviour which can displace the chosen or preferred attitude. The extent to which this occurs depends on the perception of the situation towards which the attitude is being directed. This is best understood by considering the two extremes, where the situation is perceived as good or neutral, and where it is seen as bad. When a situation or environment is perceived as positive or benign, behaviour is driven largely by attitude. In this case the attitudinal choice of the individual or group is the key determinant of behaviour. This choice is not mandated by the situation, and the organisation is free to select its preferred response (Upadhaya, Munir, and Blount, 2014),

People who adopt this attitude consistently may be labeled as optimists, since they tend to view all situations as equally positive. This helps such people to retain control of their behaviour since the key driver when the environment is positive is the chosen attitude, allowing a proactive response to the prevailing situation. When an individual or group perceives a situation or environment as negative, the resulting behaviour is largely determined by a direct response to the situation, and attitude plays a smaller role (Buddelmeyer & Powdthavee, 2016). Indeed a negative situation may force behaviour which is contrary to that preferred by attitude, leading to a more reactive stance. Individuals who regularly adopt reactive behaviour driven by a perception that the environment is negative may be termed pessimists, and in extreme cases this may even lead to paranoia (Salamanca *et al.* 2016). And since attitude drives behaviour, different people will exhibit different responses to the same situation, as a result of their differing underlying risk attitudes a situation regarded as too risky by one person will be seen as acceptable by another (Bonsang & Dohmen, 2015).

While most project managers actively accept negative risks, hardly do they accept actively positive risks. This peculiar attitude of most project managers indirectly implies that as human beings, most of us are basically risk-averse in risk appetite. In project risk management, most of a project managers' work time goes in mitigating negative risks rather than exploiting or enhancing opportunities (Bodeutsch & Philip, 2015). Risk attitude of project managers and the enterprises they work for might have played significant role in how the project risks were managed by these project managers. The risk attitude of a person or organization is influenced by three major factors that include risk appetite, risk tolerance and risk threshold (Cain and McKeon, 2014).

Organizations perceive risk as the effect of uncertainty on projects and organizational objectives. Organizations and stakeholders' willingness to accept varying degrees of risk depends on their risk attitude. Much as most of the literature to justify this is based on developed economies and scanty literature is available to justify the same in developing economies. The available literature is centered on financial sectors in developed economies compared to developing countries such as Uganda where there are still challenges of organisational performance in the financial sector. This provides a literature gap which will be addressed by the study on the relationship between risk attitude and organizational performance among financial institutions in Uganda's financial sector.

2.8 Operational risk and Risk Attitude

According to Grace *et al.*, (2015), it is inherent in the nature of operational risk for it to be exposed to sources of explicit and implicit bias, since all elements of the risk process are performed by individuals and groups of people whose risk attitudes affect every aspect of operational risk. Risk attitudes exist at individual and group levels, and these can be assessed and described with some degree of accuracy (Graham, Campbell and Manju, 2013). Sources of bias can also be diagnosed, exposing their influence on the risk process. Where the risk attitude adopted is not conducive to effective operational risk, action is required to modify attitude. Groot de, Sander, Rene and Philip (2012) indicate that the attitude of individuals and organisations has a significant influence on whether operational risk delivers what it promises. Operational risks undertaken by people, acting individually and in various groups. The human element introduces an additional layer of complexity into the risk process, with a multitude of influences both explicit and covert (Black *et al.*, 2012)

These act as sources of bias, creating preferred risk attitudes which affect every aspect of risk management. Cobb-Clark and Schurer, 2013) posits that risk attitudes exist at individual, group, corporate and national levels, and can be assessed and described with some degree of accuracy. This allows sources of bias to be diagnosed, exposing their influence on the risk process. Where preferred risk attitude is not conducive to effective operational risk, action is required to modify attitude (Bodeutsch and Philip, 2015). It is important firstly to understand risk attitudes and the impact they can have on the risk management process if their presence and influence are not recognised or managed. It is also important to understand how development of emotional literacy can provide practical and powerful tools for modifying risk attitudes. The goal of operational risk is not to eliminate risk, rather to identify, plan for and manage risk (Upadhaya, Munir, and Blount, 2014). By making organisational stakeholders aware of risk and partnering with them to control those risks, managers safeguard organizations and projects and improve their abilities to complete projects on time, on budget, within scope and meet our stakeholders' expectations (Becker *et al.*, 2012)

The situational influencers of risk attitude described above mainly arise from the perception of the external environment. There is, however, an internal environment which has an equally profound effect on the way uncertainty is perceived, and hence is able to influence the preferred risk attitude of an individual or organisation (Graham, Campbell and Manju, 2013). These underlying psychological influences which affect attitudes towards uncertainty are known as heuristics. In the context of risk attitudes, heuristics describe attempts by an individual or group to analyze an uncertain situation and determine the appropriate response by referring to some previous experience Barakat, *et al.* (2018). This often occurs subconsciously as an integral part of the assessment of risk, leading to sources of bias when considering a situation where the answer is unknown or unfamiliar, and where a person is required to make a judgment with insufficient information. Thus, for financial institution in Uganda to manage risk well, managers should possess the required risk attitude in regard to how risk is perceived and also be able to behave in a manner that responsibly reduces the occurrence of risk in Uganda's financial sector.

2.9 Conclusion

This chapter has presented the literature review in relating to operational risk, risk attitude and organizational performance in organizations. Specifically, literature relating to operational risk and risk attitude and how they relate to organisational performance has

been presented. During the review of literature, the researcher considered a literature survey on the existing research that had been carried out of the study variables. The researcher was able to link the literature reviewed to the problem under study which helped to give an in-depth understanding of both the dependent and independent variables. The next chapter presents the methodology adopted for the research where the research design, study population, sampling and data collection instrument are discussed. Also discussed in the next chapter is testing of the validity and reliability of the research instruments and also the procedures that were involved in the research process. Data analysis plan is also presented in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the research design, study population, sample size and sample selection, and measurement of variables, reliability and validity of instruments, data collection tools, ethical considerations, and data processing and analysis.

3.2 Research design

The study adopted a cross sectional survey design and correlation design. Only quantitative data was considered for this study.

3.3 Study population

The study population comprised of 66 selected financial institutions in Kampala district comprising of financial institutions from tier 1 (Commercial banks), tier 2 (Credit/Microfinance institutions) and tier 3 (Micro deposit Institutions-MDIs) (Bank of Uganda Stability Report, 2017; AMFIU, 2017).

3.4 Sample size and Sampling Procedure

A sample size of 60 financial institutions was determined using the Krejcie and Morgan (1970) as shown in table 3.1. The Financial Institutions formed the unit of analysis. The study used stratified random sampling technique to select the 60 financial institutions. Each stratum comprised of a category of financial institution which included Microfinance Institutions, Micro Deposit Institutions and Commercial banks. Purposive sampling was used to select the credit manager and risk manager because they were in position to respond to the instrument (Unit of inquiry). The response rate was 91.67%

Table 3. 1: Sample size of the study

Category	Population (N)	Sample Size (n)
Microfinance Institutions	37	33
Micro Deposit Institutions	3	3
Commercial Banks	26	24
Total	66	60

Source: BOU Stability Report (2017); AMFIU (2017)

3.5 Data sources

The required primary data was collected from respondents in the selected financial institutions. This was done through administering self-administered questionnaire. Respondents were guided through the questionnaire to ensure accuracy in the data collection.

3.6 Data collection instrument

Primary data was collected through administering structured questionnaires so as to ensure confidentiality of the respondents. The questionnaire contained structured questions relating to operational risk, risk attitude and organizational performance which were constructed on a five point Likert scale with respondents answering in line with the extent to which they agree or disagree with the statements in the questionnaire. The questionnaire also included questions on both the institutional characteristics and individual characteristics in these financial institutions.

3.7 Measurement of variables

The study variables was measured based on the five point Likert scale responses ranging from strongly disagree (1) to strongly agree (5).

- i. Operational risk was measured and modified using constructs of internal processes, people competence and systems (Al-Tamimi, 2008). The researcher developed statements to operationalize each of the constructs and were subjected to a five point Likert scale.
- ii. Risk attitude was measured and conceptualized in terms of risk perceptions and risk behavior (Eckles *et al.*, 2014). The developed scales were anchored on a 5 point Likert scales ranging from 1-strongly disagree to 5-strongly agree.
- iii. Organizational performance was measured and modified using profitability, return on assets and asset quality (Al-Dhaafri, *et al.*, 2016). These statements were subjected to a five point Likert scale.

3.8 Reliability and Validity of instrument

A pre-test of the research instrument to establish their validity was done. The instrument was given to three experts to give their opinions on the relevance of the questions using a 5-point scale of relevant to not relevant. It was further pre-tested by administering it to probable respondents (n=12) to test for their understandability of the items. Items that were found not to be relevant were eliminated and those found not to be understood were adjusted for

understandability for the final research instrument that was used. The results are indicated in table 3.2.

The research instrument was also examined for its reliability by using the Cronbach alpha coefficient test (Cronbach, 1951) so as to prove that the research instrument used to collect data from the respondents was appropriate and could yield similar results at all time. The results are shown in table 3.2 below. Results in Table 3.1 show that the research instrument used in this study was reliable and valid with all the values above 0.7 (Nunnally, 1978; Hair *et al.*, 2014).

Table 3. 2: Reliability and validity of the research instrument

Variable	Anchor	Cronbach Alpha	Content Validity index
Operational risk	5 Point	0.789	0.853
Risk attitude	5 Point	0.754	0.871
Organizational performance	5 Point	0.831	0.867

Source: Primary data

3.9 Ethical consideration

The study ensured that specific ethical issues to guarantee confidentiality of the respondents were considered. A letter was obtained from the faculty of graduate research granting me permission to collect the data. The questionnaire instrument did not have space for name or telephone number in order to ensure that as a means of increasing confidentiality. All information obtained was strictly be used for academic purposes

3.10 Data processing and analysis

The data collected was edited for incompleteness and inconsistency to ensure correctness of the information given by the respondents by use of a computer. Statistical Package for Social Scientists (SPSS 22) was used for data entry and analysis. Frequency tables were used to describe the sample characteristics of the respondents. A correlation analysis tool i.e. the Pearson' correlation coefficient was used to examine the relationship between operational risk, risk attitude and organizational performance. Multiple regression analysis was carried out to find the extent to which operational risk and risk attitude predicted organizational performance of financial institutions.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter analyzes and presents the findings of the study. The findings are presented in tables showing frequencies, analysis of variance, correlations and regression analysis. It is guided by the following objectives: i) to examine the relationship between operational risk and organizational performance of financial institutions. ii) To examine the relationship between risk attitude and organizational performance of financial institutions. iii) To establish the combined effect of operational risk and risk attitude on organizational performance in financial institutions in Uganda.

4.2 Respondent Characteristics

This section presents the characteristics of respondents such as their gender, age bracket, highest level of education attained and work experience as shown in table 4.1 with generated respective frequencies.

Table 4. 1: Individual characteristics

A: Gender	Count	Valid Percent	Cumulative Percent
Male	46	41.8	41.8
Female	64	58.2	100.0
Total	110	100.0	
B: Highest level of education	Count	Valid Percent	Cumulative Percent
Degree	55	50	50
Masters	47	42.7	92.7
PhD	8	7.3	100.0
Total	110	100.0	
C: Age bracket	Count	Valid Percent	Cumulative Percent
21 - 30 years	19	17.2	17.2
31 - 40 years	75	68.2	85.3
41 -50 years	14	12.7	98.2
Above 50 years	2	1.8	100.0
Total	110	100.0	
D: Work Experience	Count	Valid Percent	Cumulative Percent
1- 3 years	26	23.6	23.6
4 - 7 years	59	53.6	77.1
8 - 12 years	15	13.6	90.8
13 - 15 years	5	4.5	95.4
Above 15 years	5	4.5	100.0
Total	110	100.0	

Source: Primary data

The results in table 4.1 above showed that the majority of the respondents were female (58.2%) while only 41.8% were male. This implies that majority of respondents were over dominated by female as per the study. This meant that females were holding position of finance more than male counterparts. As it regards to highest qualification attained, the results from table 4.1 show that the majority of respondents had bachelors' degrees with 50%, followed by with master's degree with 42.7 % and the least were PhD with 7.3%. This means that majority of the respondents have the right skills and knowledge to understand performance related issues affecting the institution. On the part of age bracket, the results from table 4.1 reveal that the majority of respondents had their age bracket ranging between

31-40 years with 68.2%. This means that majority of the respondents among financial institutions are majorly mature and active. Finally, in terms of work experience, It was noted that the majority of the respondents have worked for the period 4 – 7 years and these comprised 53.6% o of the sample. These results show the simple fact that there is a diversity of experiences for the respondents to respond to the subject matter which was performance.

4.3 Institutional Characteristics

This section presents the characteristics of institution in terms of institution type, years of operations and number of branches as shown in table 4.2 with generated respective frequencies.

Table 4. 2: Institutional characteristics

<i>Type of Institution</i>	Count	Valid Percent	Cumulative Percent
Bank	20	36.3	36.3
MDI	2	3.7	40.0
MFI	33	60.0	100.0
Total	55	100.0	
<i>Institutional Age</i>	Count	Valid Percent	Cumulative Percent
Less than 10 years	6	10.9	10.9
10 – 20	26	47.3	58.2
21 – 30	13	23.6	81.8
Over 30	10	18.2	100.0
Total	55	100.0	
Number of Branches	Count	Valid Percent	Cumulative Percent
Less than 5 branches	12	21.8	21.8
5 – 9	10	18.2	40.0
10 – 14	10	18.2	58.2
Over 14	23	41.8	100.0
Total	55	100.0	

Source: Primary data

Results in table 4.2 indicated that microfinance institutions were the majority with 60% followed by the commercial banks with 36.3%. In addition, the results in table 4.2 shows that majority (47.3%) of institutions had been in operations for a period of 10-20 years. This

means that overall in the industry, majority of respondents have acquired good experience and skills to execute their jobs professionally. This means that overall in the industry, majority of the institutions have stayed long in terms of their number of years in operations to respond on performance related issues. Lastly in terms of branches spread, majority had over 14 years across the country. This meant that the institutions selected were able to respond to performance matters well.

4.4 Analysis of Variance

The analysis of variance analysis was used to test for the presence of significance difference among sample characteristics of the surveyed financial institutions. The results are presented in table 4.3 show that there were no significant differences between the type of financial institutions with operational risk, risk attitude and organizational performance. This suggested that all responses from the different financial institutions did not have any significant differences on the study variables that were being investigated. The results for analysis of variance are shown in the table 4.3 below.

Table 4. 3: Analysis of Variance

		N	Mean	Std. Deviation	Std. Error	F-Statistic	Sig.
Operational Risk	Bank	20	4.1154	.77856	.15269	0.101	0.904
	MDI	2	4.2143	.63621	.24046		
	MFI	33	4.1818	.39477	.08417		
	Total	55	4.1545	.62266	.08396		
Risk Attitude	Bank	20	3.7692	.76460	.14995	1.925	0.156
	MDI	2	3.8571	1.02933	.38905		
	MFI	33	4.1818	.58849	.12547		
	Total	55	3.9455	.74952	.10107		
Operational Performance	Bank	20	3.8269	.82392	.16158	2.193	0.122
	MDI	2	3.9286	.44987	.17003		
	MFI	33	4.2045	.33306	.07101		
	Total	55	3.9909	.64184	.08655		

Source: Primary data

Results in table 4.3 show that the type of institution had insignificant differences on the perception of respondents on operational risk ($p > 0.904$), risk attitude ($p > 0.156$) and

organizational performance ($p>0.122$). This helped us to rule out the effect of type of institution on the final results.

4.5 Correlation analysis

The objectives of the study were based on the relationships between the different variables which were: operational risk, risk attitude and organizational performance of financial institutions. In order to achieve this, the Pearson (r) correlation coefficient was computed given the interval nature of the data and the need to test the direction and strength of associations that exist among the study variables. Table 4.4 presents the correlation analysis results.

Table 4. 4: Pearson correlations (Zero-order)

Variables	1	2	3
Operational risk 1	1.000		
Risk attitude 2	.445**	1.000	
Organizational performance 3	.513**	.471**	1.000
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary data

4.5.1 The relationship between operational risk and organizational performance.

The results in table 4.4 indicate that the relationship between operational risk and organizational performance is positive and statistically significant ($r = 0.513$, $p\leq 0.01$). This indicates that positive change in operational risk is associated with positive change in organizational performance of financial institutions. This implies that financial institutions with better internal processes, excellent systems and competent people are more likely to increase their return on assets, profitability and improve their asset quality hence improve organizational performance.

4.5.2 The relationship between risk attitude and organizational performance.

The results in table 4.4 above shows that there is a positive and significant relationship between risk attitude and organizational performance ($r= 0.471$, $p\leq 0.01$). This finding means that improved risk attitude results into improved organizational performance. This result implies that financial institutions with positive risk perceptions and risk behaviors are in

better position to manage risks effectively which enhances the profitability margins and improves asset quality.

4.5.3 The relationship between operational risk and risk attitude and organizational performance

The results in table 4.4 above show that there is a positive and significant relationship between operational risk and risk attitude of the financial institution ($r=.445^{**}$, sig. $<.01$). This implies that the operational risk dimensions such as the systems, internal processes and the people competences have a positive association with the risk attitude of the financial institution. This further means that financial institutions that manage their operational risks are more likely to have enhanced risk perceptions and behaviours.

4.6 Regression Analysis

To establish the extent to which operational risk and risk attitude predicted organizational performance, a prediction model was developed using regression analysis and the findings are shown in the **table 4.5 below**.

Table 4.5: Regression of operational risk and risk attitude on organizational performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.348	.523		2.577	.013
Operational risk	.391	.130	.379	3.005	.004
Risk attitude	.259	.108	.302	2.394	.020
Dependent Variable: Organizational performance					
R Square	.337		F Change	13.189	
Adjusted R Square	.311		Sig.	.000	

Source: Primary data

Results from table 4.5 above, show that a combination of operational risk and risk attitude explained on average up to 0.311 variations in the organizational performance of financial institutions. This implies that other than operational risk and risk attitude, there are other factors affecting organizational performance of financial institutions not considered in this

study. In addition, operational risk was a significant predictor of organizational performance with beta value 0.379. This means that an improvement in operational risk leads to positive changes in organizational performance.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion, conclusions and recommendations arising out of the research findings in chapter four and suggestions on areas that can be studied in future are also presented in this chapter.

5.2 Discussion of the findings

5.2.1 Operational risk and Organizational performance.

The study findings revealed that the relationship between operational risk and organizational performance is positive and statistically significant. This indicated that a positive change in operational risk is associated with a positive change in organizational performance of financial institutions. This implies that financial institutions with better internal processes, excellent systems and people are more likely to increase their return on assets, profitability and improve their asset quality hence improve organizational performance. This finding concurs with Ko, Lee & Anandarajan (2019) who indicated that the higher level of operational risk incidents is linked to higher likelihood of credit default and to poorer performance. In same vein, Ellul & Yerramilli (2013) found that the financial failure of 2008-2009 was very instrumental in shaping the way organizations exploit the organizational risk management behaviour so as to attain the desired institutional goals. In other words, the risk management measures had to evolve so as to meet the changing financial landscape and organization that were competent at this were then able to meet their institutional goals. Similarly, Abdymomunov & Mihov (2015) suggested that those financial institutions that failed to take into account the people in their management of the operational risk would not remain competitive so as to attain the desired performance.

5.2.2 Risk attitude and Organizational performance

The study findings revealed that there is a positive and significant relationship between risk attitude and organizational performance. This finding means that improved risk attitude results into improved organizational performance. This result implies that financial institutions with positive risk perceptions and risk behaviors are in better position to manage risks effectively which enhances the profitability margins and improves asset quality. This result is supported by the findings of Hankins & Williams (2015) who suggested that the risk

attitude is a major ingredient in meeting the institutional goals of any financial services Player since the risk attitude determines the decisions that are taken by the institutional leadership. In the same vein, Cornaggia (2013) revealed that there is a positive and significant link between the attitude of the senior leadership in an organization and the entire level of performance which could be expressed in terms of increased profitability and return on the investments that the firms have made.

5.2.3 Operational risk and Risk attitude and organisational performance

The study findings revealed that there is a significant positive relationship between operational risk and risk attitude and organizational performance of financial institution. This implies that the operational risk dimensions such as the systems, internal processes and the people have a positive association with the risk attitude of the financial institution. This further means that financial institutions that manage their operational risks are more likely to have enhanced risk perceptions and behaviours. This finding agree with the thoughts of Abdymomunov & Mihov (2015) who found that the risk perceptions that management holds can however be enhanced as long as the internal systems are quite perceived to be developmental and constructive. A danger that should be avoided by management in the financial institutions is the adoption of a culture which keeps these internal processes from developing. Such a development would discourage even the most motivated among these employees and they end up developing a very negative attitude towards the management of the organization. Furthermore, Groot de, Sander, Rene & Philip (2012) indicated that the attitude of individuals and organizations has a significant influence on whether operational risk delivers what it promises. Operational risk is undertaken by people, acting individually and in various groups. The human element introduces an additional layer of complexity into the risk process, with a multitude of influences both explicit and covert (Black *et al.*, 2012).

5.3 Conclusions

This study sought to examine the relationship between operational risk, risk attitude and organizational performance. The study concludes that financial institutions that have better internal processes, systems and competent people are able to improve their performance. Therefore the need to have systems, internal processes and people updated and upgraded is very significant in improving the organizational performance of financial institutions. Secondly, the study found a positive and significant relationship between risk attitude and organizational performance. Financial institutions to realize a better performance, they need

to change the risk perceptions and behaviors of its staff towards managing risks. Thirdly, the study reveals that operational risk enhances improved risk attitude. Better internal processes, systems and people help in enhancing the risk perceptions and risk behaviours within the financial institutions. Finally the study revealed that operational risk was a better predictor of organizational performance than risk attitude.

5.4 Recommendations

From the study findings, the following are the recommendations derived as follows;

There is need for financial institutions to strengthen their operational risk procedures and policies. These processes should be reviewed on a monthly basis while the people who are holding the various offices can be subjected to a performance appraisal process. The outcome of the performance appraisal process should be handled so as to help the employees improve their performance.

The financial institution employees engaged in the management of risk should be subjected to the needs assessment. The needs assessment should be done for each individual so as to offer a customised training solution. In this way, the members in the financial institution shall be able to acquire customised solutions. The people doing the training should be well experienced and seasoned persons who are well able to monitor the risks in the institution.

It is quite necessary to have risk management systems that are compliant with the latest developments in the financial services sector. It is therefore worthwhile to ensure that financial institutions compare their service offering and the operational aspect of their activities, with the more established financial institutions. In this way, financial institutions that have not been experienced for long will also be able to improve their service offerings.

This research recommends advanced IT risk management methods (including IT security risks considering the current trends in technology, and further hiring experienced IT risk managers.

5.5 Limitations of the study

- i. The study used a questionnaire for data collection and this has a weakness of limiting the amount of data collected. Follows up were a solution to this issue.
- ii. Some respondents were hesitant to give all the required information because of fear to expose it to the competitors especially on the financial systems issues. However, the researcher overcame this by spending time with the respondents to explain to them that the study is basically for academic purposes.
- iii. Accessibility of the respondents was very difficult because of their busy schedules and majority of the respondents spent a lot of time completing the research instrument.

5.6 Areas of further research

- i. The study only concentrated on few financial institutions, another study can be carried to cover all financial institutions in Uganda including insurance companies.
- ii. The study variables considered in this study only explained 0.311 of variation in organizational performance; the study recommends considering other factors such as credit risk management.
- iii. The future research should follow the longitudinal approach to predict beliefs and behavior over time since the model of this study is cross-sectional, which measures the intention only at a single point in time.

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1	2	3
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B5- How long has your financial institution operated in Uganda?

Less than 10	10 - 20	21 - 30	Over 30
1	2	3	4

B6- How many Branches does your financial institution have in Uganda?

Less than 5	5 - 9	10 - 14	Over 14
1	2	3	4

Section B: Operational Risk

Please indicate the extent to which you agree or disagree with the statements below by ticking once for each .

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
	Systems					
SY1	The institution identifies and assesses core risks and opportunities for which it has a comparative advantage	1	2	3	4	5
SY2	The organization has a mechanism for estimating potential losses	1	2	3	4	5
SY3	The institution prioritizes risks in line with the risk appetite and strategic objectives	1	2	3	4	5
SY4	The institution has set up processes to identify and assess emerging risks and opportunities	1	2	3	4	5
SY5	At the organization, we integrate risk with SWOT analysis and other strategic initiatives	1	2	3	4	5
SY6	The institution has enough technical and infrastructure support in terms of staff	1	2	3	4	5
	Internal Processes					
IP1	The organization has an effective risk management system	1	2	3	4	5

IP2	Staff adhere to set risk management procedures	1	2	3	4	5
IP3	The organization has adequate risk management procedures in place	1	2	3	4	5
IP4	The institution's risk management processes are able to reduce the potential for risk occurrence	1	2	3	4	5
IP5	Our financial statements are always accurate and acted upon to avoid risk in the organisation.	1	2	3	4	5
IP6	The performance of risk management procedures is reviewed on a regular basis	1	2	3	4	5
IP7	The bank integrates risk management into planning at all levels	1	2	3	4	5
IP8	Risks are always analysed critically by the relevant staff in the organisation	1	2	3	4	5
IP9	Controls are in place to evaluate the efficiency of the risk management program.	1	2	3	4	5
IP10	Risk is evaluated in terms of both quantitative and qualitative value.	1	2	3	4	5
	People competencies					
PP1	The roles of staff in the risk management efforts of the bank are well communicated to them.	1	2	3	4	5
PP2	Employees are properly trained on risk management policies	1	2	3	4	5
PP3	Risks are subdivided into individual levels for further analysis	1	2	3	4	5
PP4	Risk management program is well documented	1	2	3	4	5
PP5	Risk management efforts are supported by senior management.	1	2	3	4	5
PP6	The staff of the bank are always ethical in	1	2	3	4	5

	the execution of their duties					
		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
PP7	Management is always involved in risk mitigation	1	2	3	4	5
PP8	Staff always adhere to the approved procedures	1	2	3	4	5
PP9	We always integrate risk management into planning at all levels	1	2	3	4	5
PP10	The staff of the bank are always committed and honest	1	2	3	4	5
PP11	Staff are usually sensitized on risk management	1	2	3	4	5
Section C: Risk Attitude						
Risk Perception/Cognition						
RP1	There is nothing wrong without adhering to risk procedures	1	2	3	4	5
RP2	Adhering to risk procedures generally benefits the user	1	2	3	4	5
RP3	We consider risk when performing risk activities.	1	2	3	4	5
RP4	Our institution is more cautious than many others in general	1	2	3	4	5
RP5	This institution never takes any risks that can be avoided in financial matters	1	2	3	4	5
RP6	Our management is very cautious and do not disregard risks	1	2	3	4	5
RP7	We take careful measures to understand the technological complexity of the risk system	1	2	3	4	5
RP8	When we think of an operation, we immediately think of the risks involved	1	2	3	4	5
Risk taking/behaviour						
RT1	Management ignores some risk procedures when trying to save time.	1	2	3	4	5
RT2	Management adheres to the set procedures because they help avoid mistakes	1	2	3	4	5

RT3	We constantly refer to risk manuals before starting our day's work	1	2	3	4	5
RT4	The institution is committed to following risk guidelines	1	2	3	4	5
RT5	We often dare to do risky things that other financial institutions are reluctant to do	1	2	3	4	5
RT6	We never take anything for granted and this has been very helpful	1	2	3	4	5
RT7	We sometimes do things which can be compared to a gamble	1	2	3	4	5
Section E: Organizational Performance						
OP1	Over the last 3 years the profits of the organization have steadily increased	1	2	3	4	5
OP2	Over the last 3 years the profit margins of the organization have increased	1	2	3	4	5
OP3	The return on investment has increased over the last three years	1	2	3	4	5
OP4	Our liquidity has improved	1	2	3	4	5
OP5	Our sales volume have steadily increased	1	2	3	4	5
OP6	Our market share has improved over time.	1	2	3	4	5
OP7	Our market has grown over time.	1	2	3	4	5
OP8	Our organization has achieved an increase in total assets.	1	2	3	4	5
OP9	Our organization achieves yield on investment higher than that of our competitors.	1	2	3	4	5
OP10	The organization's return on investment has overridden that of our competitors.	1	2	3	4	5
OP11	Our account sales have steadily increased.	1	2	3	4	5
OP12	The financial position of the organization has improved.	1	2	3	4	5

EVALUATE THE FOLLOWING FINANCIAL RATIOS TO ASSESS THE FINANCIAL PERFORMANCE OF YOUR COMPANY FOR THE LAST THREE YEARS. (1. Very low, 2, Low, 3=Moderate, 4=Good and 5=Very good.)

a. Profitability

1	2	3	4	5

b. Return on Assets

1	2	3	4	5

c. Asset quality

1	2	3	4	5

Thanks a lot for your precious time!