ADDIS ABABA UNVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

Assessment of Project Risk Management Practices: The case of Commercial Bank of Ethiopia Information Technology Infrastructure Library (ITIL) Project

By

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Declaration

I, the undersigned, declare that this research project is my own work and effort and it has not been submitted anywhere for any award. Where other sources of information have been used, they have been duly acknowledged.

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Table of Contents

List of Figures

List of Tables

Acronyms

APM	Association for Project Management
ATM	Automated Teller Machine
CBE	Commercial Bank of Ethiopia
IT	Information Technology
ITIL	Information Technology Infrastructure Library
PMI	Project Management Institute
PMO	Project Management Office
SMEs	Subject matter experts
SWOT	Strengths, Weaknesses, Opportunities and Threats
SPSS	Statistical Packages for Social Science

Abstract

The main objective of the study was to assess the practice of project risk management in commercial bank of Ethiopia by taking information technology infrastructure library project as a case study. Descriptive research design was applied and data were collected through close-ended questionnaire, interview and document review. The total populations of the study were 21 and questionnaires were distributed to them. Respondents were experts of project management office, project teams and project manager. Quantitative data's were analyzed by using Statistical Packages for social science (SPSS) version 23 and qualitative analysis were made by relating literature. The finding shows that the risk identification and risk response were fairly practiced. Hence, the project mainly faces operational and technical risks and the mainly used risk responses strategies were mitigate and transfer. Plan risks, risk analysis, risk control as well as the general practice of project risk management were poor. As a recommendation the bank should follow formal or standardize risk management process like plan risk management, identify risks, risk analysis (qualitative and quantitative), risk response and risk control processes and put input, output, and tools and techniques to them. So future projects can mitigate or prevent risks and increase opportunities.

Key words: *Risk, Risk Management, Project Risk Management*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

According to Turner (1992),Project is an endeavor in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work of given specification, within constraints of cost, time and quality, so as to achieve unitary and beneficial change through the delivery of quantified and qualitative objectives. All projects are inherently risky because they are unique, constrained, complex, based on assumptions, and performed by people (APM, 2006).

Guides published by the US Project Management Institute (PMI) and the UK Association for Project Management (APM) have adopted a broad view of project risk in terms of threats and opportunities. Their definitions of project risk are very similar, as follows: Project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality. A risk may have one or more causes and, if it occurs, it may have one or more impacts. A cause may be a given or potential requirement, assumption, constraint, or condition that creates the possibility of negative or positive outcomes (PMI, 2013). Project risk is an uncertain event or set of circumstances that, should it occur, will have an effect on the achievement of the project's objectives (APM, 2006).

Risk management is thus an important tool to cope with such substantial risks in projects by assessing and ascertaining project viability, analyzing and controlling the risks in order to minimize loss, alleviating risks by proper planning and avoiding dissatisfactory projects and thus enhancing profit margins (Lam etal. 2007).Project Risk Management includes the processes of conducting risk management planning, identification, analysis (qualitative and quantitative), response planning, and controlling risk on a project. The objectives of project risk management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project (PMI, 2013)

According to PMI (2013), plan risk management is the process of defining how to conduct risk management activities for a project. Identify risks is the process of determining which risks may affect the project and documenting their characteristics. Perform qualitative risk analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. Perform quantitative risk analysis is the process of numerically analyzing the effect of identified risks on overall project objectives. Plan risk responses are the process of developing options and actions to enhance opportunities and to reduce threats to project objectives. Control risks is the process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risks.

Risk management in IT projects has become a focal point in organizations, given that it can minimize the chances and impacts of project threats, and ultimately create opportunities throughout the project lifecycle. And found that most of IT project managers were not following any risk management approach, since they appreciated its concepts and managerial implications only vaguely. Furthermore is the need to ascertain if experience is essential to the application of risk management aspects in IT projects (Alhawari et al., 2012).

Commercial bank of Ethiopia (CBE) is now implementing various IT projects in order to achieve its organizational vision (to become world class commercial bank by 2025). Moreover the bank launched these projects; to achieve organizational target like, to give quality service to customers, to increase deposit of the bank, to create cashless society throughout the country, as well as to increase the profitability and overall growth of the bank. Therefore, this study tried to address the extent of risk management practice, techniques and tools in the Information Technology Infrastructure Library (ITIL) project.

1.2 About the Project

The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. In 1963, the Ethiopian government split the State Bank of Ethiopia into two banks, the National Bank of Ethiopia (the central bank), and the Commercial Bank of Ethiopia. And CBE was legally established as a share company in 1963. In 1974, CBE merged with the privately owned Addis Ababa Bank. Since then, it has been playing significant roles in the economic progress and development of the country. It was Pioneer to introduce modern banking to the country. It has more than 1340 branches stretched across the country and the leading African bank with assets of 646.69 billion Birr as on March 31st 2019. Currently CBE has more than 20 million account holders and the number of Mobile and Internet Banking users also reached more than 1,736,768 as of June 30th 2018. Active ATM card holders reached more than 5.2 million (www.combanketh.et).

To standardize the selection, planning, delivery and maintenance of IT services management with a business commercial bank of Ethiopia program management office started the project called Information Technology Infrastructure Library (ITIL). The main objective of the project is to improve IT service management of the bank. The team members were selected from functional departments and a project manager from IS program management office. The team composition are heterogeneous since the business team are come from Human Resources Management sub process, Technical team were assigned from Information System process, and the consultant who has major role in carrying out of the execution stage are Tech Mahindra-Indian Company.

The project started on May 1, 2017 and scheduled to end on January 31, 2019. But the project couldn’t complete within the scheduled time hence it delayed more than 5 months and it is on

closing stage. In addition, the allocated budget was $50,000(around birr 1,400,000). However, the actual cost become $65,000(around birr 1,800,000) hence, the project face cost overrun of birr 400,000.

1.3 Statement of the problem

As integral part of project management, effective project risk management is a critical success factor for delivering projects in predefined cost, time, and quality. Project risk management provides benefits when it is implemented according to good practice, principles and with organizational commitment to taking the decisions and performing actions in an open and unbiased manner. Whereas, Poor risk management as a whole is one of the major aspects causing projects to collapse, and this has become an obstacle to each and every project that is being developed nowadays. Ignoring chances of risks in a project can bring about a lot of costs to the project sponsor hence spoiling the relationship between an organization and the client/customer to which the project is being developed for (Mobey & Parker, 2002).

Ibbs and Kwak (2000) established that risk as a knowledge area had the lowest maturity of all project management knowledge areas in information systems projects. This validates what Ropponen (1999) had found, that 75% of IT project managers were not following any risk management approach, since they appreciated its concepts and managerial implications only vaguely. Furthermore is the need to ascertain if experience is essential to the application of risk management aspects in IT projects.

Alhawari et al., 2012 suggest that during the lifecycle of an IT project, risk management turns out to be a crucial aspect in organizations, since it can capture opportunities that could occur and simultaneously reduce the likelihood and impact of IT project threats. However, risk management is often ignored though it can have a substantial effect on the choice of projects with regard to project scope and the cultivation of realistic schedules and cost estimates, as well as project stakeholders, to understand the project's description and assist with the integration of other project knowledge areas. Furthermore, Mnkandla (2012) postulates that there are many concerns relating to risk management in IT projects, such as ostensible failure by many organizations to implement project risk planning, monitoring and control properly. In addition, risk management in projects is the knowledge area applied least often because it has no visible artifacts yet lack of it will affect project success negatively if the risk should occur.

Information and Communication Technology is believed to play an important role in development. However, the success rates of IT projects from 1994-2012 ranged between 16% and 39%, with the remainder having performance issues or being complete failures. High failure rates of IT projects were caused by completion beyond budget, behind schedule, and without meeting requirements. One of the major contributors for such failure like time delay and cost overrun was inadequate project risk management (Brandas, Didraga and Bibu, 2012).

The initial assessment and document review by the researcher shows that ITIL project encountered time delays and cost overrun. One of the major contributors for such delay and cost overrun was inadequate project risk management. Therefore the researcher become initiated to undertake research on assessing risk management practice throughout the project life cycle in commercial bank of Ethiopia specifically in ITIL project by considering the project risk theories and guideline of Project Management Institute (PMI), and the actual practice. The research also discussed about the Bank's practice of project risk planning, identification, risk analysis, risk response, and control risks approach in general.

1.4 Research Questions

The study attempted to answer the following research questions;

- ✓ What was the practice of risk planning in the project?
- ✓ What was the practice of risk identification in ITIL?
- ✓ What was the practice of risk analyzing in ITIL?
- ✓ What was the practice of risk response strategy in ITIL?
- ✓ What was the practice of risk monitoring and controlling in ITIL?

1.5 Objective of the study

1.5.1 General Objective

The main objective of the study was to assess the project risk management practice in commercial bank of Ethiopia ITIL project.

1.5.2 Specific Objectives

- ✓ To assess the risk planning practice in ITIL
- ✓ To assess the risk identification practices in the project.
- ✓ To assess how identified risks will be analyzed.
- ✓ To identify the practice of risk response strategy.
- ✓ To assess the practice of risk monitoring and controlling.

1.6 Significance of the Study

This research will intend to fill the literature gap related to assessing project risk management practice in CBE IT projects. Specifically this research will serve as preliminary work or a pace base for further study on the issue. Furthermore, this study will also expect to increase awareness of the challenges of project risk management and therefore, the study will benefit commercial bank of Ethiopia. Generally, this research will benefit several stakeholders such as organization, project teams, other researchers and clients as well as society as a whole.

1.7 Scope of the study

To investigate & reach on all project risk management practices of projects under CBE, it requires extensive research, much more time, detail information, and energy. Therefore, the scope of the research was limited to extent of assessing, evaluating, analyzing, describing and identifying project risk management practices in CBE ITIL project.

1.8 Limitation of the study

Limitations which affect the process of the study were the following: The first limitation of this paper was absence of sufficient practical and empirical analysis on the project risk management practice in CBE. The second was respondents' unwillingness to give sufficient information and lack of clear and well-handled information.

1.9 Organization of the Research Report

The overall organization of the paper contains five consequential chapters. The first chapter deals with the introduction part comprising statement of the problem, objectives, scope, significance of the study and other relevant introductory issues. The second chapter focused on related Literature review. Here, all of the significant literature in relation to the topic under discussion was made. The third chapter concerned with research methodologies. It explains research design, study area, data collection, data analysis techniques, and validity and reliability. The fourth chapter comprised of data analysis and presentation. The last chapter, chapter five encompassed the summary of findings, conclusion and recommendation part of the paper.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Theoretical Literature Review

2.1.1 What is a Project?

According to Westland (2006), a project is a unique endeavor to produce a set of deliverables within clearly specified time, cost and quality constraints. Projects are different from standard business operational activities as they:

•Are unique in nature. They do not involve repetitive processes. Every project undertaken is different from the last, whereas operational activities often involve undertaking repetitive (identical) processes.

• Have a defined timescale. Projects have a clearly specified start and end date within which the deliverables must be produced to meet a specified customer requirement.

• Have an approved budget. Projects are allocated a level of financial expenditure within which the deliverables are produced, to meet a specified customer requirement. • Have limited resources. At the start of a project an agreed amount of labor, equipment and materials is allocated to the project.

• Involve an element of risk. Projects entail a level of uncertainty and therefore carry business risk.

• Achieve beneficial change. The purpose of a project is typically to improve an organization through the implementation of business change

2.1.2 What is Project Management?

According to Westland (2006), project management is the skills, tools and management processes required to undertake a project successfully. It incorporates:

• A set of skills. Specialist knowledge, skills and experience are required to reduce the level of risk within a project and thereby enhance its likelihood of success.

• A suite of tools. Various types of tools are used by project managers to improve their chances of success. Examples include document templates, registers, planning software, modeling software, audit checklists and review forms.

• A series of processes. Various processes and techniques are required to monitor and time, cost, quality and scope on projects. Examples include time management, cost management, quality management, change management, risk management and issue management.

2.1.3 Project risk

Guides published by the US Project Management Institute (PMI) and the UK Association for Project Management (APM) have adopted a broad view of project risk in terms of threats and opportunities. Their definitions of project risk are very similar, as follows: Project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality. A risk may have one or more causes and, if it occurs, it may have one or more impacts. A cause may be a given or potential requirement, assumption, constraint, or condition that creates the possibility of negative or positive outcomes (PMI, 2013). Project risk is an uncertain event or set of circumstances that, should it occur, will have an effect on the achievement of the project's objectives (APM, 2006).

Risk is not only related to a specific point of actions, but it also relates to future project conditions. Conditions can change during project life cycle and may turn out to be favorable or unfavorable. In the early stage of a project, there is a high degree of uncertainty, which decreases when we have a high degree of background knowledge. It is however essential to mention that a project manager should always be aware both of random and epistemic uncertainty, because they both have great impact in the project outcome (Flanagan and Norman, 1993).

According to Kerzner (2003) risk is a measure of the probability and consequence of not achieving a defined project goal. Most people agree that risk involves the notion of uncertainty. Risk has two primary components for a given event:

- A probability (likelihood) of occurrence of that event
- Impact of the event occurring (amount at stake)

2.1.3.1 Types of Project risk in IT Projects

According to Sparks (2013) context of Project Management, Risk Management is critical area for the success or failure of any software project. Most companies these days utilize complicated risk management tools in order to identify, reduce, and altogether prevent risk. There are various categories of risks associated with software project management. These are depicted below figure 2.1.

Figure 2.1Types of Project risk in IT Projects (Sparks, 2013)

1. Schedule/Delivery Related Planning Risks: These risks are related to running behind schedule and are essential time-related risks, which directly impact the delivery of the project. Some of the reasons for such risks are; Incorrect Time Estimation, and consequently an incorrect project schedule (Sparks, 2013).

2. Budget / Financial Risks: According to Sparks (2013) these are the monetary risks which are associated with budget overruns. Some of the reasons for such risks are;

- Improper Budget Estimation
- Cost Overruns due to underutilization of resources
- Expansion of Project Scope
- Improper Tracking of Finances
- Underutilization of resources especially happens when resources are shared between projects because it becomes difficult to effectively manage such resources and a certain amount of productivity may go waste.

Further, unexpected expansion of project scope (due to addition of features by clients, etc.) may lead to budget overruns as such expansions may not have been factored in to the original estimates.

3. Operational / Procedural Risks: According to Sparks (2013) these are risks which are associated with the day-to-day operational activities of the project. These could be due to any of the below reasons;

- Improper Process Implementation
- Silo approach followed by software development teams leading to conflicts
- Lack of conflict resolution / team spirit
- Lack of clarity in responsibilities
- Lack of sufficient training
- Lack of effective team communication

4. Technical / Functional /Performance Risks: These are technical risks associated with the functionality of the software or with respect to the software performance. In order to compensate for excessive budget overruns and schedule overruns, companies sometimes reduce the functionality of the software. Software testing is a downstream stage in the software development lifecycle and as the project falls behind schedule, downstream activity times are shrunk in order to meet delivery dates which results in insufficient software testing (Sparks, 2013).

Further, developers face a constant trade-off between achieving maximum functionality of the software (in terms of software features) and peak performance (maximum speed and quick response time by minimizing and eliminating unnecessary frills from the software**).** In order to maintain the sanctity of the software development process, while simultaneously catering to the customer's needs, a mutually agreed-upon cut-off date should be determined, beyond which "expected software functionality" would be frozen and any further requirements would be handled in subsequent software's releases (Sparks, 2013).

5. Other Unavoidable Risks: All the risks described above are those which can be anticipated to a certain extended and planned for in advance. However, there are certain risks which are unavoidable in nature.

The reasons for such unavoidable risks are described below.

- Changes in government policy
- Obsolescence of software due to new technology from a rival company
- Loss of contracts due to changes at customers end

Although these risks are broadly unavoidable, an organization may anticipate and thereby reduce the impact of such risks by keeping abreast with changes in government policy monitoring the competition catering to the needs of the customer and ensuring customer satisfaction(Sparks, 2013).

2.1.4 Project risk management

Project risk management is one of the ten (10) knowledge areas of project management. And it includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project. The objectives of project risk management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project (PMI, 2013).

One well accepted description of risk management according to (Berg, 2010) is the following: risk management is a systematic approach to setting the best course of action under uncertainty by identifying, assessing understanding, acting on and communicating risk issues. Risk management in the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks and communicating risk issues to achieve project objectives.

Risk management is the act or practice of dealing with risk. It includes planning for risk, assessing (identifying and analyzing) risk issues, developing risk handling strategies, and monitoring risks to determine how they have changed. Risk management is not a separate project office activity assigned to a risk management department, but rather is one aspect of sound project management. Risk management should be closely coupled with key project processes, including but not limited to: overall project management, systems engineering, cost, scope, quality, and schedule. Proper risk management is proactive rather than reactive. Hence, proper risk management will attempt to reduce the likelihood of an event occurring and/or the magnitude of its impact (Kerzner, 2003).

2.1.5 Risk Management Processes

According to the Project Management Body of Knowledge, in PMI (2013), Risk management contains the following processes:

- Plan Risk Management
- Identify Risks
- Risk Analysis (Qualitative and Quantitative)
- Plan Risk Responses
- Control Risks

2.1.5.1 Plan Risk Management

Plan Risk Management is the process of defining how to conduct risk management activities for a project. The key benefit of this process is it ensures that the degree, type, and visibility of risk management are commensurate with both the risks and the importance of the project to the organization. The risk management plan is vital to communicate with and obtain agreement and support from all stakeholders to ensure the risk management process is supported and performed effectively over the project life cycle (PMI, 2013).

Careful and explicit planning enhances the probability of success for other risk management processes. Planning is also important to provide sufficient resources and time for risk management activities and to establish an agreed upon basis for evaluating risks. The Plan Risk Management process should begin when a project is conceived and should be completed early during project planning (Kerzner, 2009).

2.1.5.1.1 Plan risk Management: tools and techniques (PMI, 2013)

1. Analytical techniques: They are used to understand and define the overall risk management context of the project. Risk management context is a combination of stakeholder risk attitudes and the strategic risk exposure of a given project based on the overall project context (PMI, 2013).

2. Expert Judgment: To ensure a comprehensive establishment of the risk management plan, judgment, and expertise should be considered from groups or individuals with specialized training or knowledge on the subject area, such as: Senior management, Project stakeholder, Project managers who have worked on projects in the same area (directly or through lessons learned), Subject matter experts (SMEs) in business or project area, Industry groups and consultants, and Professional and technical associations (PMI, 2013).

3. Meetings: Project teams hold planning meetings to develop the risk management plan. Attendees at these meetings may include the project manager, selected project team members and stakeholders, anyone in the organization with responsibility to manage the risk planning and execution activities, and others, as needed (PMI, 2013).

2.1.5.2 Identify Risks

Identify Risks is the process of determining which risks may affect the project and documenting their characteristics. The key benefit of this process is the documentation of existing risks and the knowledge and ability it provides to the project team to anticipate events (PMI, 2013).

Participants in risk identification activities may include the following: project manager, project team members, risk management team (if assigned), customers, subject matter experts from outside the project team, end users, other project managers, stakeholders, and risk management experts. While these personnel are often key participants for risk identification, all project personnel should be encouraged to identify potential risks (Kerzner, 2009).

Identify risks is an iterative process, because new risks may evolve or become known as the project progresses through its life cycle. The frequency of iteration and participation in each cycle will vary by situation. The format of the risk statements should be consistent to ensure that each risk is understood clearly and unambiguously in order to support effective analysis and response development. The risk statement should support the ability to compare the relative effect of one risk against others on the project. The process should involve the project team so they can develop and maintain a sense of ownership and responsibility for the risks and associated risk response actions. Stakeholders outside the project team may provide additional objective information (PMI, 2008).

2.1.5.2.1 Identify risks: tools and techniques (PMI, 2013)

1. Documentation reviews: According to PMI (2013), a structured review of the project documentation may be performed, including plans, assumptions, previous project files, agreements, and other information. The quality of the plans, as well as consistency between those plans and the project requirements and assumptions, may be indicators of risk in the project.

2. Information Gathering techniques: Examples of information gathering techniques used in identifying risks can include:

- **Brainstorming:** The goal of brainstorming is to obtain a comprehensive list of project risks. The project team usually performs brainstorming, often with a multidisciplinary set of experts who are not part of the team. Ideas about project risk are generated under the leadership of a facilitator, either in a traditional free-form brainstorm session or structured mass interviewing techniques. Categories of risk, such as in a risk breakdown structure, can be used as a framework. Risks are then identified and categorized by type of risk and their definitions are refined (PMI, 2013).
- **Delphi technique:** The Delphi technique is a way to reach a consensus of experts. Project risk experts participate in this technique anonymously. A facilitator uses a questionnaire to solicit ideas about the important project risks. The responses are summarized and are then recalculated to the experts for further comment. Consensus may

be reached in a few rounds of this process. The Delphi technique helps reduce bias in the data and keeps any one person from having undue influence on the outcome (PMI, 2013).

- **Interviewing:** Interviewing experienced project participants, stakeholders, and subject matter experts helps to identify risks.
- **Root cause analysis:** Root-cause analysis is a specific technique used to identify a problem, discover the underlying causes that lead to it, and develop preventive action.

3. Checklist Analysis: Risk identification checklists are developed based on historical information and knowledge that has been accumulated from previous similar projects and from other sources of information. The lowest level of the RBS can also be used as a risk checklist. While a checklist may be quick and simple, it is impossible to build an exhaustive one, and care should be taken to ensure the checklist is not used to avoid the effort of proper risk identification. The team should also explore items that do not appear on the checklist. Additionally, the checklist should be pruned from time to time to remove or archive related items. The checklist should be reviewed during project closure to incorporate new lessons learned and improve it for use on future projects.

4. Assumptions Analysis: Every project and its plan is conceived and developed based on a set of hypotheses, scenarios, or assumptions. Assumptions analysis explores the validity of assumptions as they apply to the project. It identifies risks to the project from inaccuracy, instability, inconsistency, or incompleteness of assumptions.

5. Diagramming techniques: Risk diagramming techniques may include: cause and effect diagrams, system or process flow charts, influence diagrams.

6. SWOT Analysis: This technique examines the project from each of the strengths, weaknesses, opportunities, and threats (SWOT) perspectives to increase the breadth of identified risks by including internally generated risks. The technique starts with identification of strengths and weaknesses of the organization, focusing on either the project, organization, or the business area in general. SWOT analysis then identifies any opportunities for the project that arise from organizational strengths, and any threats arising from organizational weaknesses. The analysis also examines the degree to which organizational strengths offset threats, as well as identifying opportunities that may serve to overcome weaknesses (PMI, 2013).

7. Expert Judgment: Risks may be identified directly by experts with relevant experience with similar projects or business areas. Such experts should be identified by the project manager and invited to consider all aspects of the project and suggest possible risks based on their previous experience and areas of expertise. The experts' bias should be taken into account in this process.

2.1.5.3 Risk Analysis

2.1.5.3.1 Perform Qualitative Risk Analysis

Perform Qualitative Risk Analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. The key benefit of this process is that it enables project managers to reduce the level of uncertainty and to focus on high-priority risks (PMI, 2013).

Perform Qualitative Risk Analysis assesses the priority of identified risks using their relative probability or likelihood of occurrence, the corresponding impact on project objectives if the risks occur, as well as other factors such as the time frame for response and the organization's risk tolerance associated with the project constraints of cost, schedule, scope, and quality. Such assessments reflect the risk attitude of the project team and other stakeholders. Effective assessment therefore requires explicit identification and management of the risk approaches of key participants in the Perform Qualitative Risk Analysis process. Where these risk approaches introduce bias into the assessment of identified risks, attention should be paid to identifying bias and correcting for it (Kerzner, 2009).

Establishing definitions of the levels of probability and impact can reduce the influence of bias. The time criticality of risk-related actions may magnify the importance of a risk. An evaluation of the quality of the available information on project risks also helps to clarify the assessment of the risk's importance to the project. Perform Qualitative Risk Analysis is usually a rapid and cost-effective means of establishing priorities for Plan Risk Responses and lays the foundation for Perform Quantitative Risk Analysis, if required. The Perform Qualitative Risk Analysis process is performed regularly throughout the project life cycle, as defined in the project's risk management plan (PMI, 2013).

2.1.5.3.1 Perform Qualitative Risk Analysis: tools and techniques (PMI, 2013)

1. Risk Probability and Impact Assessment: It investigates the likelihood that each specific risk will occur. Risk impact assessment investigates the potential effect on a project objective such as schedule, cost, quality, or performance, including both negative effects for threats and positive effects for opportunities. Probability and impact are assessed for each identified risk. Risks can be assessed in interviews or meetings with participants selected for their familiarity with the risk categories on the agenda. Project team members and knowledgeable persons external to the project are included (PMI, 2013).

The level of probability for each risk and its impact on each objective is evaluated during the interview or meeting. Explanatory detail, including assumptions justifying the levels assigned, are also recorded. Risk probabilities and impacts are rated according to the definitions given in the risk management plan. Risks with low ratings of probability and impact will be included within the risk register as part of the watch list for future monitoring (Kerzner, 2009).

2. Probability and Impact Matrix: Risks can be prioritized for further quantitative analysis and planning risk responses based on their risk rating. Ratings are assigned to risks based on their assessed probability and impact. Evaluation of each risk's importance and priority for attention is typically conducted using a look-up table or a probability and impact matrix. Such a matrix specifies combinations of probability and impact that lead to rating the risks as low, moderate, or high priority. Descriptive terms or numeric values can be used depending on organizational preference (PMI, 2013).

3. Risk data Quality Assessment: it is a technique to evaluate the degree to which the data about risks is useful for risk management. It involves examining the degree to which the risk is understood and the accuracy, quality, reliability, and integrity of the data about the risk.

The use of low-quality risk data may lead to a qualitative risk analysis of little use to the project. If data quality is unacceptable, it may be necessary to gather better data. Often, the collection of information about risks is difficult, and consumes more time and resources than originally planned. The values used in the example in Figure 11-10 are representative. The numbers of steps in the scale are usually established when defining the risk attitude of the organization (PMI, 2013).

4. Risk categorization: Risks to the project can be categorized by sources of risk (e.g., using the RBS), the area of the project affected (e.g., using the WBS), or other useful categories (e.g., project phase) to determine the areas of the project most exposed to the effects of uncertainty. Risks can also be categorized by common root causes. This technique helps determine work packages, activities, project phases or even roles in the project, which can lead to the development of effective risk responses (PMI, 2013).

5. Risk urgency Assessment: Risks requiring near-term responses may be considered more urgent to address. Indicators of priority may include probability of detecting the risk, time to affect a risk response, symptoms and warning signs, and the risk rating. In some qualitative analyses, the assessment of risk urgency is combined with the risk ranking that is determined from the probability and impact matrix to give a final risk severity rating.

6. Expert Judgment: It is required to assess the probability and impact of each risk to determine its location. Experts generally are those having experience with similar, recent projects. Gathering expert judgment is often accomplished with the use of risk facilitation workshops or interviews. The experts' bias should be taken into account in this process.

2.1.5.3.2 Perform Quantitative Risk Analysis

Perform Quantitative Risk Analysis is the process of numerically analyzing the effect of identified risks on overall project objectives. The key benefit of this process is that it produces quantitative risk information to support decision making in order to reduce project uncertainty. Perform Quantitative Risk Analysis is performed on risks that have been prioritized by the Perform Qualitative Risk Analysis process as potentially and substantially impacting the

project's competing demands. The Perform Quantitative Risk Analysis process analyzes the effect of those risks on project objectives. It is used mostly to evaluate the aggregate effect of all risks affecting the project. When the risks drive the quantitative analysis, the process may be used to assign a numerical priority rating to those risks individually (PMI, 2013).

Perform Quantitative Risk Analysis generally follows the Perform Qualitative Risk Analysis process. In some cases, it may not be possible to execute the Perform Quantitative Risk Analysis process due to lack of sufficient data to develop appropriate models. The project manager should exercise expert judgment to determine the need for and the viability of quantitative risk analysis. The availability of time and budget, and the need for qualitative or quantitative statements about risk and impacts, will determine which method(s) to use on any particular project. Perform Quantitative Risk Analysis should be repeated, as needed, as part of the Control Risks process to determine if the overall project risk has been satisfactorily decreased. Trends may indicate the need for more or less focus on appropriate risk management activities (Kerzner, 2009).

2.1.5.4.1 Perform Quantitative Risk Analysis: tools and techniques (PMI, 2013)

1. Data Gathering and representation techniques: includes

- **Interviewing:** Interviewing techniques draw on experience and historical data to quantify the probability and impact of risks on project objectives. The information needed depends upon the type of probability distributions that will be used. For instance, information would be gathered on the optimistic (low), pessimistic (high), and most likely scenarios for some commonly used distributions.
- **Probability distributions:** Continuous probability distributions, which are used extensively in modeling and simulation, represent the uncertainty in values such as durations of schedule activities and costs of project components. Discrete distributions can be used to represent uncertain events, such as the outcome of a test or a possible scenario in a decision tree.

2. Quantitative risk Analysis and Modeling techniques: Commonly used techniques use both event-oriented and project-oriented analysis approaches, including:

- **Sensitivity analysis:** Sensitivity analysis helps to determine which risks have the most potential impact on the project. It helps to understand how the variations in project's objectives correlate with variations in different uncertainties. Conversely, it examines the extent to which the uncertainty of each project element affects the objective being studied when all other uncertain elements are held at their baseline values.
- **Expected monetary value analysis:** Expected monetary value (EMV) analysis is a statistical concept that calculates the average outcome when the future includes scenarios that may or may not happen (i.e., analysis under uncertainty). The EMV of opportunities are generally expressed as positive values, while those of threats are expressed as negative values. EMV requires a risk-neutral assumption— neither risk averse nor risk

seeking. EMV for a project is calculated by multiplying the value of each possible outcome by its probability of occurrence and adding the products together.

- **Modeling and simulation:** A project simulation uses a model that translates the specified detailed uncertainties of the project into their potential impact on project objectives. Simulations are typically performed using the Monte Carlo technique. In a simulation, the project model is computed many times (iterated), with the input values (e.g., cost estimates or activity durations) chosen at random for each iteration from the probability distributions of these variables (PMI, 2013).

3. Expert Judgment: Expert judgment (ideally using experts with relevant, recent experience) is required to identify potential cost and schedule impacts, to evaluate probability, and to define inputs such as probability distributions into the tools.

Expert judgment also comes into play in the interpretation of the data. Experts should be able to identify the weaknesses of the tools as well as their strengths. Experts may determine when a specific tool may or may not be more appropriate given the organization's capabilities and culture.

2.1.5.4 Plan Risk Responses

Plan Risk Responses is the process of developing options and actions to enhance opportunities and to reduce threats to project objectives. The key benefit of this process is that it addresses the risks by their priority, inserting resources and activities into the budget, schedule and project management plan as needed (PMI, 2013).

The Plan Risk Responses process follows the Perform Quantitative Risk Analysis process (if used). Each risk response requires an understanding of the mechanism by which it will address the risk. This is the mechanism used to analyze if the risk response plan is having the desired effect. It includes the identification and assignment of one person (an owner for risk response) to take responsibility for each agreed-to and funded risk response. Risk responses should be appropriate for the significance of the risk, cost-effective in meeting the challenge, realistic within the project context, agreed upon by all parties involved, and owned by a responsible person. Selecting the optimum risk response from several options is often required (Kerzner, 2009).

2.1.5.5.1 Strategies for Risk Response (PMI, 2013)

Three strategies, which typically deal with threats or risks that may have negative impacts on project objectives if they occur, are: avoid, transfer, and mitigate. The fourth strategy, accept; can be used for negative risks or threats as well as positive risks or opportunities. Each of these risk response strategies have varied and unique influence on the risk condition. These strategies should be chosen to match the risk's probability and impact on the project's overall objectives. Avoidance and mitigation strategies are usually good strategies for critical risks with high impact, while transference and acceptance are usually good strategies for threats that are less

critical and with low overall impact. The four strategies for dealing with negative risks or threats are further described as follows: (PMI, 2013).

1. Avoid: Risk avoidance is a risk response strategy whereby the project team acts to eliminate the threat or protect the project from its impact. It usually involves changing the project management plan to eliminate the threat entirely. The project manager may also isolate the project objectives from the risk's impact or change the objective that is in jeopardy (PMI, 2013).

2. Transfer: Risk transference is a risk response strategy whereby the project team shifts the impact of a threat to a third party, together with ownership of the response. Transferring the risk simply gives another party responsibility for its management—it does not eliminate it. Transferring does not mean disowning the risk by transferring it to a later project or another person without his or her knowledge or agreement. Risk transference nearly always involves payment of a risk premium to the party taking on the risk. Transferring liability for risk is most effective in dealing with financial risk exposure (PMI, 2013).

3. Mitigate: Risk mitigation is a risk response strategy whereby the project team acts to reduce the probability of occurrence or impact of a risk. It implies a reduction in the probability and/or impact of an adverse risk to be within acceptable threshold limits. Taking early action to reduce the probability and/or impact of a risk occurring on the project is often more effective than trying to repair the damage after the risk has occurred (PMI, 2013).

4. Accept: Risk acceptance is a risk response strategy whereby the project team decides to acknowledge the risk and not take any action unless the risk occurs. This strategy is adopted where it is not possible or cost-effective to address a specific risk in any other way. This strategy indicates that the project team has decided not to change the project management plan to deal with a risk, or is unable to identify any other suitable response strategy (PMI, 2013).

2.1.5.5 Monitoring and Control Risks

Control Risks is the process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project. The key benefit of this process is that it improves efficiency of the risk approach throughout the project life cycle to continuously optimize risk responses (PMI, 2013).

Planned risk responses that are included in the risk register are executed during the life cycle of the project, but the project work should be continuously monitored for new, changing, and outdated risks. The Control Risks process applies techniques, such as variance and trend analysis, which require the use of performance information generated during project execution. Other purposes of the Control Risks process are to determine if:

- Project assumptions are still valid,
- Analysis shows an assessed risk has changed or can be retired,

- Risk management policies and procedures are being followed, and
- Contingency reserves for cost or schedule should be modified in alignment with the current risk assessment.

Control Risks can involve choosing alternative strategies, executing a contingency or fallback plan, taking corrective action, and modifying the project management plan. The risk response owner reports periodically to the project manager on the effectiveness of the plan, any unanticipated effects, and any correction needed to handle the risk appropriately. Control Risks also includes updating the organizational process assets, including project lessons learned databases and risk management templates, for the benefit of future projects (PMI, 2013).

2.1.5.6.1 Monitoring and Control risks: tools and techniques (PMI, 2013)

1. Risk reassessment: Control Risks often results in identification of new risks, reassessment of current risks, and the closing of risks that are outdated. Project risk reassessments should be regularly scheduled. The amount and detail of repetition that are appropriate depends on how the project progresses relative to its objectives.

2. Risk Audits: It examine and document the effectiveness of risk responses in dealing with identified risks and their root causes, as well as the effectiveness of the risk management process. The project manager is responsible for ensuring that risk audits are performed at an appropriate frequency, as defined in the project's risk management plan. Risk audits may be included during routine project review meetings, or the team may choose to hold separate risk audit meetings. The format for the audit and its objectives should be clearly defined before the audit is conducted.

3. Variance and trend Analysis: Many control processes employ variance analysis to compare the planned results to the actual results. For the purposes of controlling risks, trends in the project's execution should be reviewed using performance information. Earned value analysis and other methods of project variance and trend analysis may be used for monitoring overall project performance. Outcomes from these analyses may forecast potential deviation of the project at completion from cost and schedule targets. Deviation from the baseline plan may indicate the potential impact of threats or opportunities.

4. Technical Performance Measurement: it compares technical accomplishments during project execution to the schedule of technical achievement. It requires the definition of objective, quantifiable measures of technical performance, which can be used to compare actual results against targets. Such technical performance measures may include weight, transaction times, number of delivered defects, storage capacity, etc. Deviation, such as demonstrating more or less functionality than planned at a milestone, can help to forecast the degree of success in achieving the project's scope.

5. Reserve Analysis: Throughout execution of the project, some risks may occur with positive or negative impacts on budget or schedule contingency reserves. Reserve analysis compares the amount of the contingency reserves remaining to the amount of risk remaining at any time in the project in order to determine if the remaining reserve is adequate.

6. Meetings: Project risk management should be an agenda item at periodic status meetings. The amount of time required for that item will vary, depending upon the risks that have been identified, their priority, and difficulty of response. The more often risk management is practiced, the easier it becomes. Frequent discussions about risk make it more likely that people will identify risks and opportunities.

2.1.6 Project Risk Management Practices in IT Projects

Risk management in IT projects has become a focal point in organizations, given that it can minimize the chances and impacts of project threats, and ultimately create opportunities throughout the project lifecycle (Alhawari et al., 2012). Furthermore, the view of risk in IT projects differs among stakeholder groups (Bannerman, 2008), across projects, between cultures, over time and life cycle stages. Interlinked to that, Charette (2005) holds that risk management in IT projects can significantly increase their outcome. This notion is also supported by Brandas, Didraga and Bibu (2012), who assert that practical experience specifies that using formal and structured processes for the management of expected and unexpected risks minimizes unpredictable costs, stress, misunderstandings and delays. On the contrary, Ibbs and Kwak (2000) established that risk as a knowledge area had the lowest maturity of all project management knowledge areas in information systems projects. This validates what Ropponen (1999) had found, that 75% of IT project managers were not following any risk management approach, since they appreciated its concepts and managerial implications only vaguely. Furthermore is the need to ascertain if experience is essential to the application of risk management aspects in IT projects.

In another study, De Wet and Visser (2013) point out that the effectiveness and status of risk management in IT projects in South Africa need to be explored. This notion is supported by Mudau and Pretorius (2009), who hold that there is still a gap between proper practice and frequency of usage of risk management methods and activities in IT projects in South Africa. What becomes pronounced is whether the application of risk management in IT projects is based on experience in either IT project management or risk management. Based on the foregoing, it becomes imperative to establish the following research questions, wherein the aspects are risk management as a knowledge base, risk management in current IT projects, risk management status in IT projects and risk management and project clients:

Alhawari et al., (2012) posit that during the lifecycle of an IT project, risk management turns out to be a crucial aspect in organizations, since it can capture opportunities that could occur and simultaneously reduce the likelihood and impact of IT project threats. However, risk management is often ignored though it can have a substantial effect on the choice of projects

with regard to project scope and the cultivation of realistic schedules and cost estimates, as well as project stakeholders, to understand the project's description (Susser, 2012) and assist with the integration of other project knowledge areas. Furthermore, Mnkandla (2012) postulates that there are many concerns relating to risk management in IT projects, such as ostensible failure by many organizations to implement project risk planning, monitoring and control properly. In addition, risk management in projects is the knowledge area applied least often because it has no visible artifacts yet lack of it will affect project success negatively if the risk should occur.

2.2 Empirical Literature Review

This part discuss different researchers that undertake a study on the practice of project risk management and most of them found that project risk management was poorly practiced.

A study by Bisrat (2018) on assessment of Risk Management Practices of Ethiopian Public Health Institute found that even though risk management practice should be started from the planning phase of the project, here the practice was more focused in the implementation stage of the project. The risk management plan also was not well integrated with the project plan and not involves all potential stakeholders. There was also issues that need special attention i.e. team members not have enough information and understanding regarding risks and its management system, this is an indication that team members need training and updating regarding risk management and the finding also indicated that risk management practice in these projects was not participatory and inclusive.

A study by Frezewud (2016) on project risk management practice in Batu and Dukem town water supply project revealed that there is no policy or guideline that is stated for the projects which proposes how to handle uncertainties that the projects may encounter. Based on the result of the analysis, through the life cycle of the projects, risk management is not performed as a continuous process and is usually applied at the implementation stage. The findings of the result also showed that a standard and defined risk management process does not exist within the projects and that there isn't any person or department specifically assigned to manage uncertainties within the projects

A survey was conducted by Tigest (2017) on project management practices in a case of Japanese Social Development Trust Fund Grant Project. The research assessed the practice of project risk management as one of the project management knowledge areas. The survey used a likert type scale ranging from 1(Strongly Disagree/highly dissatisfied) to 5(Strongly Agree/Highly Satisfied)on the practice of development of risk management plan, identification and registering of risks, risk prioritization and estimation of impacts, development of risk response plan, monitoring and controlling of the identified risks. Finally, the result found a mean of 2.02, 2.07, 2.05, 2.07 and 2.10 respectively. This implies that, the practice of project risk management is poor in a way that projects are expected to put into practice.

According to Andenet (2018) who undertake a study on project risk management of bank of Abyssinia ISAP project found that project team didn't have deep experience in risk management. In addition, there was no documented risk register from previous projects that support the project team in risk identification and analysis. Moreover, the organization policy and procedure was inadequate to guide the project team to go through a disciplined risk management process. As a result, the project teams were unable to link business analysis of threats and opportunities and analysis of project risk strongly. In general the bank doesn't follow a standard project risk management practice in the project.

2.3 Conceptual Framework

The study assessed project risk management practice. Hence, the study considered key elements of project risk management processes. These are; plan risk management, risk identification, risk analysis, risk response and risk monitoring and controls.

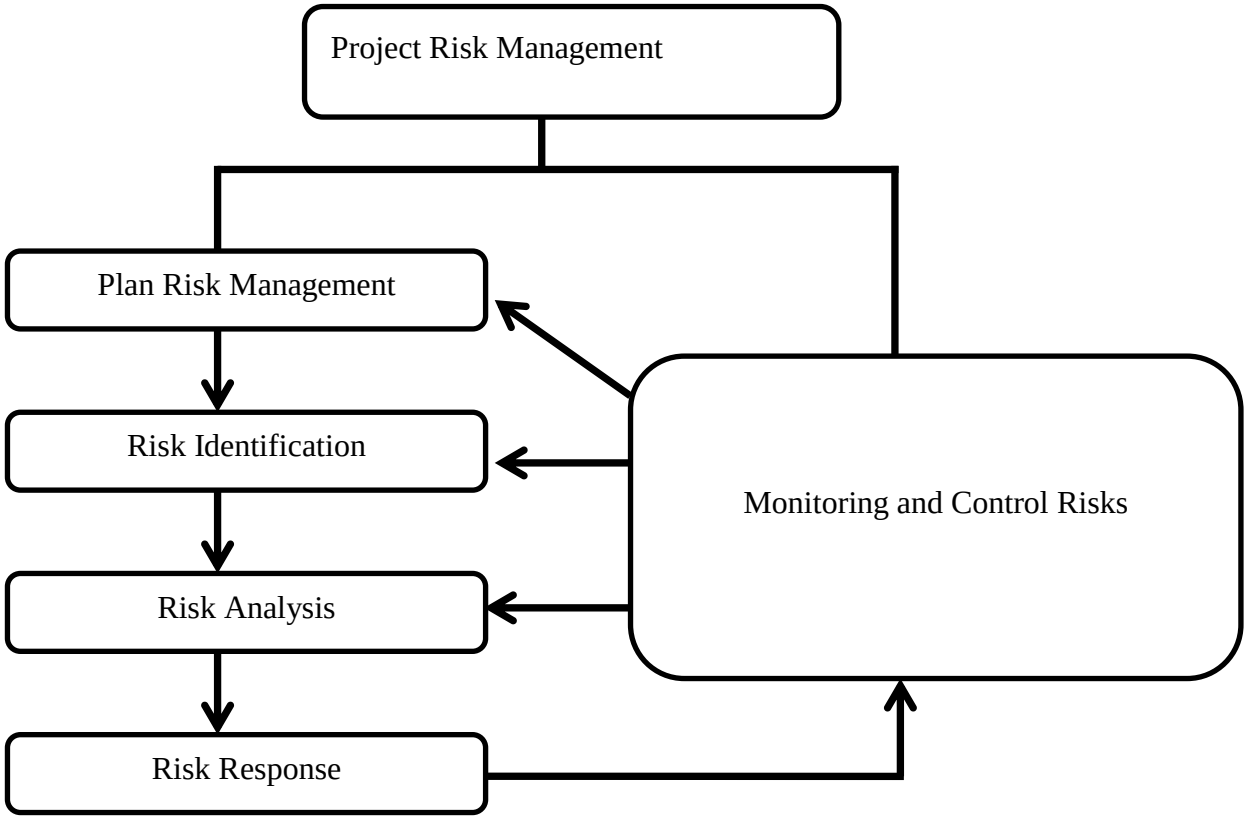

Figure 2.2 conceptual frameworks on project risk management

Source: review of various literatures

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section presents the methodology that was used to carry out the study. It includes the description of the study area, research design, data source and type, methods and tools of data collection, method of data analysis as well as validity and reliability.

3.2 Description of the Organization

The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. In 1963, the Ethiopian government split the State Bank of Ethiopia into two banks, the National Bank of Ethiopia (the central bank), and the Commercial Bank of Ethiopia. And CBE was legally established as a share company in 1963. In 1974, CBE merged with the privately owned Addis Ababa Bank. Since then, it has been playing significant roles in the economic progress and development of the country. It was Pioneer to introduce modern banking to the country. It has more than 1340 branches stretched across the country and the leading African bank with assets of 646.69 billion Birr as on March 31st 2019. Currently CBE has more than 20 million account holders and the number of Mobile and Internet Banking users also reached more than 1,736,768 as of June 30th 2018. Active ATM card holders reached more than 5.2 million.

To standardize the selection, planning, delivery and maintenance of IT services management with a business commercial bank of Ethiopia program management office started the project called Information Technology Infrastructure Library (ITIL). The main objective of the project is to improve IT service management of the bank. The team members were selected from functional departments and a project manager from IS program management office.

3.3. Research Design

Ghauri & Gronhaug, (2005) distinguished the basic differences between three main classes of research designs; exploratory, descriptive and explanatory. The research can be exploratory when it deals with unknown problem, Descriptive when there is an awareness of the problem and Explanatory, when the problem is clearly defined.

The purpose of this thesis was to conduct a case study on the assessment of project risk management practice of ITIL project in CBE. Therefore, the researcher used descriptive research design. The researcher used both qualitative and quantitative research approach. Since, qualitative research methods focus on discovering and understanding the experiences, perspectives, and thoughts of participants—that is, qualitative research explores meaning, purpose, or reality. Quantitative research methods attempt to maximize objectivity, reliability, and generalizability of findings, and are typically interested in prediction.

3.4. Data Collection

3.4.1 Source of Data and Type

In order to achieve the objective of the study both primary and secondary data were collected. Primary sources of data include interview and questionnaire whereas the source of secondary data includes existing research papers, journals and publication, books and websites.

3.4.2 Data Collection Technique

As indicated at type of data collection above, the researcher was mainly employed two data collection instruments, which help to gather relevant information for the objective of the study. This study was applied mix of qualitative and quantitative research methods. Quantitative was predominantly used as a synonym for any data collection technique (such as a questionnaire) that generates or uses numerical data. In contrast, qualitative was used predominantly as a synonym for any data collection technique (such as an interview) that generates or uses non-numerical data.

Hence, the total population for the study was 21. These were experts of the organization project management office (12), ITIL project teams (8) and the project manager. Since, the research was a case study questionnaires were distributed to all them. The interview also made with project manager and project team members who know the area or subject matter very well.

3.5 Method of Data Analysis

The study were used both qualitative & quantitative approach of data analysis to get the advantage of both. The data collected through interview were analyzed by using qualitative analysis and the data collected through questionnaire were analyzed through quantitative techniques. Hence, the researcher used primary source of data in addition to reviewing of related

literatures such as books, Articles, journals and magazines. Therefore, the data gathered through close- ended questionnaires were analyzed and presented using descriptive statistics by the help of Statistical Package for Social Sciences (SPSS) version 23. Frequency, percentages and mean were used for tabular presentations.

3.6 Validity and Reliability

To obtain acceptable and accurate response from each question in the questionnaire, reliability of data was measured using Cronbach-Alpha test. Hence, the Alpha test were 0.764 for assessment of general practice of risk management, plan risks (0.82), risk identification (0.803), risk analysis (0.827), risk response (0.791), and risk monitoring and control (0.816). And the overall Alpha test score was 0.804 which were acceptable for the study. In addition, appropriate actions were taken by the researcher for validity of the questionnaire.

3.7 Ethical Considerations

The researcher gave respondents opportunity to fill the questionnaire without intimidation. The researcher also provided requisite explanation for respondents where necessary and assured them of confidentiality as a regards the information provided. Furthermore, the researcher orients/trained data collectors and also conducted pilot test for data collection instruments and procedures. The respondents consent was required by the researcher and they assured of confidentiality & anonymity regards the whole research process.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter deals with the presentation, analysis and interpretation of sample data that is collected from the respondents. The data was analyzed using quantitative descriptive statistics with the help of SPSS Statistics version 23 statistical computer software. Questionnaire and interview were used to collect data from project teams and the project manager for assessing the practice of risk management in the case commercial bank of Ethiopia ITIL project.

The primary data that was collected through questionnaire consisted of 30 close-ended items and 21 questionnaires were distributed to experts of project management office, project teams and the project manager among those 19 of them; that has 90.5% response rate were properly completed and returned. The questionnaire used Likert scale with Strongly Disagree (SD) = 1, Disagree (D) = 2, Neutral (N) = 3, Agree (A) = 4 and Strongly Agree (SA) = 5 and there were other multiple questions. In addition, the interview was used to triangulate the questionnaire responses. The collected data was analyzed, interpreted and presented below.

4.2 Demographic Information

This part provides demographic information about the respondents' gender, age in years, educational background, and work experience in projects.

Table 4.1 Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	15	78.9	78.9	78.9
	Female	4	21.1	21.1	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

The above table depicts that out of the total respondents 15 respondents were male which accounts 78.9% of the total respondent. The rest 4 respondents were female which accounts 21.1% of the total respondent. This implies that majority of the respondents were male.

Table 4.2 Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30 years	6	31.6	31.6	31.6
	31-40 years	8	42.1	42.1	73.7
	41-50 years	3	15.8	15.8	89.5
	above 50 years	2	10.5	10.5	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.2 shows that the respondents' age was mainly categorized under the interval between 31-40 years, which accounts of 8(42.1%) of the total respondent. Whereas 6(31.6%), 3(15.8%) and 2(10.5%) of the respondents were categorized under 21-30years, 41-50 years and above 50 years respectively.

Table 4.3 Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	First Degree	12	63.2	63.2	63.2
	Masters	7	36.8	36.8	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.3 depicts that majority of the respondents were first degree holder, which accounts 12(63.2%) of the total respondent. The rest 7 respondents had master's degree, which accounts of 36.8% of the total respondents. In this regard, there were no respondents who have other qualification.

Table 4.4 Respondents Work Experience in Project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 1 year	2	10.5	10.5	10.5
	1-2 years	6	31.6	31.6	42.1
	3-5 years	8	42.1	42.1	84.2
	above 5 years	3	15.8	15.8	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

According to table 4.4 majority of the respondent's project work experience were fall under the interval between 3-5 years, which accounts of 8(42.1%) of the total respondent. Whereas respondents who have project work experience between 1-2 years were 6(31.6%).In this regard, 3 respondents have more than 5 years of project work experience which accounts 15.8% of the total respondents. Finally, 2 out of 19 respondents have project work experience less than one year, which accounts 10.5% of the total respondents.

4.3 General Risk Management Practice in the Project

This part shows about the overall practice of ITIL project by depicting the information provided by the respondents and interview.

Table 4.5 General Risk Management Practice of the Project

General project risk management practice questions	**Likert Scale**					**Mean**
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	
Risk management is considered in the early phase of the project	12(63.2%)	4(21.1%)	2(10.5%)	1(5.3%)		1.58
There is a policy or guideline that recommends how to manage unexpected uncertainties.	9(47.4%)	6(31.6%)		3(15.8%)	1(5.3%)	2.00
Project team members are getting active training and development about project risk management	11(57.9%)	5(26.3%)		2(10.5%)	1(5.3%)	1.79
Project team has deep project experience in risk management.	10(52.6%)	7(36.8%)	1(5.3%)	1(5.3%)		1.63
There is a document that registers past project risks to learn for future projects.	9(47.4%)	8(42.1%)	2(10.5%)			1.63
Grand Mean Score	**1.73**					

Source: Own survey, 2019

Table 4.5 depicts about the general practice of project risk management. Hence, five issues were raised.

In the first issue, respondents were asked if risk management is considered during early phase of the project and there corresponding response were 12(63.2%) strongly disagree, 4(21.1%) disagree and 2(10.5%) were uncertain if it exists. While the rest 1(5.3%) were agree about the issue. This shows that majority of the respondent were disagree and the mean score obtained in this regard was 1.58. This implies that the practice of thinking risk management in early phase of the project were poor. Similarly, the interview also acknowledged that there was no risk management planning in the early phase of the project.

Regarding the second issue, respondents were asked if there was a policy or guideline that recommends how to manage unexpected uncertainties. In this regard their response were 3(15.8%) agree and 1(5.3%) strongly agree. Whereas majority of the respondent were 9(47.4%) strongly disagree, 6(31.6%) disagree. This shows that there was no clear policy or guideline that recommends how to manage uncertainties. Likewise, the interview revealed that organization has prepared risk management policy and procedure to other operational issues not to the specific project.

Regarding the third issue, respondents were asked if there was active training and development of project team about project risk management and their corresponding response were 11(57.9%) strongly disagree and 5(26.3%) disagree. The rest 2(10.5%) agree and 1(5.3%) were strongly disagree. This shows that majority of the respondent were disagreed about the issue and the mean score was 1.79. In this regard the practice was poor. Likewise, the interview revealed that there was no provision of active training to handle project risk to the project team.

Table also depicts about project team deep experience in project risk management. Respondents revealed that 10(52.6%) strongly disagree, 7(36.8%) disagree, 1(5.3%) uncertain and the other 1(5.3%) were agree. This implies that project team had no enough experience in project risk management so that they are not capable to come up with uncertainties. The interview also support the result obtained from the questionnaire in that since most of project team members were came from functional department they didn't had deep project risk management experience. Regarding the fifth issue respondents were asked if there was a document that registers past project risk and their corresponding response were 9(47.4%) strongly disagree, 8(42.1%)disagree, 2(10.5%) uncertain about the issue. This implies that there was project register that documents past project risk experience and likewise, the interview revealed that there were no document about past project experience to learn for future projects.

The result obtained from interview revealed that the organization does not have risk policy and procedure for project risk management. In addition, the project teams had lack of adequate experience in risk management, and there were no documented risk register from previous projects to learn from the past. As a result, they failed to go through a disciplined risk management process. Indeed the grand mean score was 1.73 and hence, the practice of project risk management became poor.

Table 4.6 Uncertainty handling in the project

Who handle uncertainties in project?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Project Manager	6	31.6	31.6	31.6
	Consultant	8	42.1	42.1	73.7
	Client	3	15.8	15.8	89.5
	All team members in the project	2	10.5	10.5	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

In table 4.6 respondents were asked the question who was mainly responsible to handle project uncertainties that were occurred in the project and majority of the respondents were choose consultant which accounts 8(42.1%) followed by project manager which accounts 6(31.6%). In this regard, the rest 3(15.8%) and 2(10.5%) were choose client and all team members respectively. So risks mainly handled by the consultant and project manager. Similarly, the interview revealed that there were no responsible person and department to handle project risk and most of the time risks were transferred to the consultant.

Table 4.7 Stages of project risk management implementation

At which stages of the project risk management was implemented?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Initiation	2	10.5	10.5	10.5
	Planning	3	15.8	15.8	26.3
	Implementation	9	47.4	47.4	73.7
	Monitoring & Evaluation	5	26.3	26.3	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.7 depicts that 2(10.5%) of the respondents responded at the initiation stage, 3(15.8%) responded at the planning stage, 9(47.4%) of the respondents responded that it is done at the implementation stage, and 5(26.3%) responded at monitoring and evaluation stage. In this regard majority of the respondents perceived that it was implemented at implementation stage followed by monitoring and evaluation stage. This shows that risk management was not implemented in the early stages of the project. The interview also revealed that there was no any consideration of project risk management in the early stages of the project.

4.4 Plan Risk Management Practice

Table 4.8 Risk Planning

Risk planning questions	Likert Scale					Mean
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	
Relevant stakeholders are involved in risk management plan and made an agreement.	9(47.4%)	6(31.6%)	3(15.8%)	1(5.3%)		1.79
The roles and responsibilities of various stakeholders participating in risk management are clearly defined.	10(52.6%)	4(21.1%)	2(10.5%)	3(15.8%)		1.89
Risk management plan is included during project planning.	9(47.4%)	7(36.8%)	3(15.8%)			1.68
Grand Mean Score						**1.79**

Source: Own survey, 2019

Table 4.8 was depicted to show the overall risk planning practice of the project and three issues were raised. Regarding the first issue respondents were asked if relevant stakeholders were involved in the risk management plan and made an agreement. And 9(47.4%) respondents were strongly disagree and 6(31.6%) were disagree. The rest 3(15.8%) and 1(5.3%) were uncertain about the issue and agree respectively. This shows that majority of the respondent were disagreed and the mean score was 1.79. Therefore, the involvement of stakeholders in risk management plan was poor in ITIL project and the interview also supports it.

The second issue was regarding a clear definition of roles and responsibilities of stakeholders in risk management. In this regard 10(52.6%) were strongly disagree, 4(21.1%) disagree, 2(10.5%) uncertain and 3(15.8%) agree. This shows that majority of respondents were disagree and the mean score was 1.89. So the practice of defining roles and responsibility of the stakeholder in risk were also poor and the interview also declared it.

Thirdly respondents were asked if risk management plan was included in the project plan. The corresponding response were 9(47.4%) strongly disagree. 7(36.8%) disagree and 3(15.8%) were uncertain. This implies that risk management plan was not included in the project plan.
Indeed the overall practice of risk planning in ITIL project was poor since the grand mean score were 1.79. Similarly the interview supported that relevant stakeholders are not involved in risk planning and their roles and responsibilities are not clearly defined. Moreover, risk management plan were not included in project plan.

Table 4.9 the primary tool and technique in risk planning

What tool and technique were mainly used in risk planning?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Analytical Techniques	3	15.8	15.8	15.8
	Expert Judgment	6	31.6	31.6	47.4
	Meetings	10	52.6	52.6	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.9 depicts what tool and technique were mainly used in risk planning. In this regard they respond 3(15.8%) analytical technique, 6(31.6%) expert judgment, and 10(52.6%) meetings. This implies meetings and expert judgment were mainly used in risk planning. Likewise, the interview declared that meetings were mainly used as a method of risk planning.

4.5 Risk Identification Practice

Table 4.10 Risk Identification

Risk Identification Questions	Likert Scale					Mean
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	
Risks are identified throughout the project lifecycle.	9(47.4%)	5(26.3%)	2(10.5%)	3(15.8%)		1.95
Project team members are involved in risk identification process.	6(31.6%)	3(15.8%)		10(52.6%)		2.74
There is a documentation of identified risk and their characteristics.	11(57.9%)	4(21.1%)	2(10.5%)	2(10.5%)		1.74
Grand Mean Score					**2.14**	

Source: Own survey, 2019

Table 4.10 depicts the overall risk identification practice of the project by raising three issues. In the first issue respondents were asked if risks were identified throughout the project lifecycle and their response were 9(47.4%) strongly disagree, 5(26.3%) disagree, 2(10.5%) uncertain about the issue and 3(15.8%) were agree. This implies that majority of respondents were disagree. Hence, the practice of identifying risks throughout the project lifecycle was poor.

Regarding the second issue, respondents were asked if project team members were involved in risk identification process. And 6(31.6%) respond strongly disagree, 3(15.8%) disagree and 10(52.6%) agree about the issue. This shows that project team members were involved, since 52.6% of respondents were agreed and the mean score was 2.74.

In third issue respondents were asked if there was documentation of risk and their characteristics. Hence, their response were 11(57.9%) strongly disagree, 4(21.1%) disagree, 2(10.5%) uncertain and the other 2(10.5%) were agree. In this regard, majority of the respondents were strongly disagreed. So there were no documentation of risk and their characteristics that served the project team as a source of reference. Likewise, the interview revealed that the practice of documenting the identified risk and their characteristics were poor.

Indeed, the result obtained from interview and the grand mean (2.14) revealed that the practice of project teams involvement in the process of risk identification were fair. However, risks were not identified throughout the project lifecycle and there were no risk register that document the identified risks and their characteristics.

Table 4.11 type of risk

What type of risk that the project is highly exposed to?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Operational Risk	6	31.6	31.6	31.6
	Technical Risk	7	36.8	36.8	68.4
	Schedule Risk	4	21.1	21.1	89.5
	Budget Risk	2	10.5	10.5	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.11 the response of the questionnaire on what type of risk that the project was facing. Accordingly their response were 6(31.8%) operational risk, 7(36.8%) technical risk, 4(21.1%) behind schedule and the other 2(10.5%) respond budget (cost) overrun. This implies that the project mainly exposed to operational and technical risks.

Table 4.12 the primary tool and technique in risk identification

What tool and technique primarily used during risk identification?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Checklist Analysis	3	15.8	15.8	15.8
	Assumption Analysis	7	36.8	36.8	52.6
	SWOT Analysis	4	21.1	21.1	73.7
	Expert Judgment	5	26.3	26.3	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

The above table depicts the primary tool and technique used in risk identification and respondents were asked on the issue. Their response were 7(36.8%) assumption analysis, 5(26.3%) expert judgment, 4(21.1%) SWOT analysis and 3(15.8%) were respond checklist analysis. This shows the project mainly used assumption analysis and expert judgment followed by SWOT analysis in risk identification.

4.6 Risk Analysis Practice

Table 4.13 Risk Analysis

Questions on risk analysis	Likert Scale					Mean
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	
Risks are prioritized based on their probability of occurrence and impact	5(26.3%)	4(21.1%)		9(47.4%)	1(5.3%)	2.84
Identified risks are numerically analyzed on the overall objectives of the project	13(68.4%)	3(15.8%)	2(10.5%)	1(5.3%)		1.53
Project documents are updated after risks are analyzed	12(63.2%)	4(21.1%)	2(10.5%)	1(5.3%)		1.58
Grand Mean Score						**1.98**

Source: Own survey, 2019

Table 4.13 depicts about the practice of risk analysis in the project by raising three issues. In the first issue respondents were asked if risks were prioritized based on their probability of occurrence and impact. In this regard, their response were 5(26.3%) strongly disagree, 4(21.1%) disagree, 9(47.4%) agree and the other 1(5.3%) strongly agree. Hence, majority of the respondent agree about the issue and the mean score were 2.84. This shows that the prioritization of risk based on their probability of occurrence and impact was good. Likewise, the interview revealed that risks were prioritized based on occurrence and impact.

Regarding the second issue respondents were asked if identified risks were numerically analyzed on the overall objectives of the project. In this case, their response were 13(68.4%) strongly disagree, 3(21.1%) disagree, 2(10.5%) uncertain and 1(5.3%) agree. This implies that the practice of analyzing the identified risks numerically was poor.

In the third issue respondents were asked if project documents were updated after risks were analyzed. Their response were 12(63.2%) strongly disagree, 4(21.1%) disagree, 2(10.5%) neutral, and the other 1(5.3%) agree. Hence, majority of respondents were disagreed and this shows that the practice of updating documents after risk analysis were poor.

In general the grand mean (1.98) and the interview declared that risks were prioritized based on their probability of occurrence and impact. However, identified risks were not numerically analyzed on the overall objectives of the project and project documents were not updated after risks were analyzed.

Table 4.14 the primary tool and technique in risk analysis

What tool and technique mainly used in risk analysis?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Risk Probability & Impact Assessment	7	36.8	36.8	36.8
	Quantitative risk Analysis & Modeling techniques	0	0	0	36.8
	Risk categorization	4	21.1	21.1	57.9
	Expert Judgment	8	42.1	42.1	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

In table 4.14 respondents were asked about the tool and technique mainly used in risk analysis in the project. In this regard their responses were 8(42.1%) expert judgment, 7(36.8%) risk probability & impact assessment, 4(21.1%) risk categorization and no one choose quantitative risk analysis & modeling techniques. This shows that expert judgment, and risk probability & impact assessment were mainly applied in the project for risk analysis. Indeed qualitative risk analysis was primarily used in the project.

Table 4.15 Basis of risk analysis

Risk is analyzed based on:		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Probability	8	42.1	42.1	42.1
	Outcome	3	15.8	15.8	57.9
	Financial Impact	1	5.3	5.3	63.2
	Accomplishment of the objectives	7	36.8	36.8	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

The above table depicts that risks were analyzed mainly based on probability and accomplishment of objectives. Since 8(42.1%) respond based on probability, 7(36.8%) accomplishment of the objectives, 3(5.3%) outcome, and the other 1(5.3%) respond financial impact.

4.7 Risk Response practice

Table 4.16 Risk Response

Questions on risk response	Likert Scale					Mean
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	
Actions and options are developed to enhance opportunities and to reduce threats to project objectives.	9(47.4%)	5(26.3%)	3(15.8%)	2(10.5%)		1.89
Strategies are developed to prevent or mitigate all the identified risks.	2(10.5%)	4(21.1%)	2(10.5%)	9(47.4%)	2(10.5%)	3.26
Grand Mean Score						**2.56**

Source: Own survey, 2019

The above table 4.16 depicts the risk response practice of the project raising two issues. In the first issue respondents were asked if actions and options were developed to enhance opportunities and to reduce threats to project objectives. Their response were 9(47.4%) strongly disagree, 5(26.3%) disagree, 3(15.8%) neutral, and the other 2(10.5%) were agree. In this regard, majority of the respondents were disagree and hence, the practice developing actions and options to enhance opportunities and to reduce threats to project objectives were poor.

Regarding the second issue respondents were asked if strategies were developed to prevent or mitigate all the identified risks. Hence, their response were 2(10.5%) strongly disagree, 4(21.1%) disagree, 2(10.5%) uncertain, 9(47.4%) agree, and 2(10.5%) strongly agree and the mean was 3.26. This shows that the practice of developing strategies to prevent or mitigate the identified risk were good.

In general, the grand mean (2.56) and the interview revealed there was a good practice of developing strategies to prevent or mitigate the identified risks. However, practice developing actions and options to enhance opportunities and to reduce threats to project objectives were poor.

Table 4.17 Risk response strategy

Risk response strategy that was mainly used in the project		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Avoid	4	21.1	21.1	21.1
	Transfer	6	31.6	31.6	52.6
	Mitigate	7	36.8	36.8	89.5
	Accept	2	10.5	21.1	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

The above table 4.17 depicts risk response strategy of the project and respondents were asked on this issue. Majority of the respondent believed that mitigate 7(36.8%) and transfer 6(31.6%) were mainly used as strategies to risk response.

4.8 Risk Control and Monitoring

Table 4.18 risk control and monitoring

Questions on risk monitoring and control	Likert Scale					
	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	Mean
Risks that occur within the project are controlled and monitored in a way that goes with the goal and objective of the project.	5(26.3%)	3(15.8%)	1(5.3%)	8(42.1%)	2(10.5 %)	2.95
Risks are reviewed periodically	9(47.4%)	6(31.6%)	4(21.1%)			1.74
Risk response are audited	10(52.6%)	7(36.8%)	2(10.5%)			1.58
Effectiveness of risk management process is evaluated throughout the project	9(47.4%)	7(36.8%)		3(15.8%)		1.84
Risk monitoring and control is a continuous process in the project	11(57.9%)	4(21.1%)	2(10.5%)	2(10.5%)		1.74
Grand Mean Score						**1.97**

Source: Own survey, 2019

In table4.18 respondents were asked about the overall risk control practice of the project by raising five issues. Regarding the first issue respondents were asked if risks that occur within the project were controlled and monitored in a way that goes with the goal and objective of the project. Their response were 5(26.3%) strongly disagree, 3(15.8%) disagree, 1(5.3%) neutral, 8(42.1%) agree, and the other 2(10.5%) were strongly agree. This depicts that majority of respondents were agreed about the issue and since the mean score was 2.95. The practice of monitoring and control risks in such a way that goes with the goal and objective of the project was good.

Regarding the second issue, respondents were asked if risks were reviewed periodically. Their response were 9(47.4%) strongly disagree, 6(31.6%) disagree, and 4(21.1%) uncertain about the issue. This implies that the practice of reviewing risks periodically were poor.
In the third issue respondents were asked if risk response were audited. Hence, their response were 10(52.6%) strongly disagree, 7(36.8%) disagree, and 2(10.5%) about the issue. This shows that the practice of auditing risk response were poor.

Regarding the fourth issue, respondents were asked if effectiveness of risk management process was evaluated throughout the project, and their corresponding response were 9(47.4%) strongly disagree, 7(36.8%) disagree and 3(15.8%) agree. This implies risk management processes were not evaluated throughout the project.

In the fifth issue, respondents were asked if risk monitoring and control is a continuous process in the project and their corresponding response were 11(57.9%) strongly disagree, 4(21.1%) disagree, 2(10.5%) neutral and 2(10.5%) were agreed about the issue. This shows majority of the respondents were strongly disagree. Hence, the practice risk monitoring and control to be continuous process were poor.

The overall practice of monitoring and control risk was poor in the project, since the grand mean score was 1.97. Likewise, the interview declared that risks were not audited and reviewed periodically, and risk management was not evaluated throughout project lifecycle. However, practice of risks that occur within the project were controlled and monitored in a way that goes with the goal and objective of the project.

Table 4.19 tool and technique in risk control

What tool and technique was mainly used in risk monitoring and control?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Variance and Trend Analysis	2	10.5	10.5	10.5
	Risk Audit	4	21.1	21.1	31.6
	Technical Performance Measurement	2	10.5	10.5	42.1
	Meetings	11	57.9	57.9	100.0
	Total	19	100.0	100.0	

Source: Own survey, 2019

Table 4.19 depicts the tool and technique that are mainly used in risk control. Respondents were asked regarding the issue and in their 2(10.5%) choose variance and trend analysis, 4(21.1%) risk audit, 2(10.5%) technical performance measurement, 11(57.9%) meetings. This shows that meetings were mainly used as a tool in project risk control.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Introduction

The general purpose of this study was to assess the project risk management practice of CBE ITIL project. The study also tried to see the level of risk management practice towards risk planning, risk identification, risk analysis, risk response, and risk control of the project by raising different issues in the form of questionnaire and interview. In this chapter the researcher tries to make a summary of major finding, conclusion and also some recommendations for better risk management practice for future projects in CBE.

5.2. Summary of the Major Findings

The result obtained from the respondents and the interview revealed that the organization does not have formal risk policy and procedure for project risk management. In addition, the project teams had lack of active training in project risk management as well as lack of adequate experience in risk management, and there were no documented risk register from previous projects to learn from the past. Moreover, risk management was not considered in the early phases of the project and there wasn't responsible person or department to handle risk in the project. Hence, risks were mostly handled by consultant the project manager, since project management office (PMI) was not work closely with risk and compliance department of the bank.

The result obtained from questionnaire and interview in risk planning confirmed that all stakeholders weren't participated in risk planning. In addition, the roles and responsibilities of the various stakeholders participating in the risk management weren't clearly established. Moreover, risk management plan didn't include in project plan and the tool and technique mainly used risk planning were meetings and expert judgment.

Regarding risk identification, the analysis revealed that the practice of project teams involvement in the process of risk identification were fair. However, risks were not identified throughout the project lifecycle and there were no risk register that document the identified risks and their characteristics.

In risk analysis, results from questionnaire and interview revealed that risks were prioritized based on their probability of occurrence and impact. However, identified risks were not numerically analyzed on the overall objectives of the project and project documents were not updated after risks were analyzed. Hence, the practice qualitative risk analysis was fair.

The result obtained from questionnaire and interview in risk response declared that there was a good practice of developing strategies to prevent or mitigate the identified risks. However, practice developing actions and options to enhance opportunities and to reduce threats to project objectives were poor.

According to the respondents, the overall practice of monitoring and control risk was poor in the project, since the grand mean score was 1.97. Likewise, the interview declared that risks were not audited and reviewed periodically, and risk management was not evaluated throughout project lifecycle. However, practice of risks that occur within the project were controlled and monitored in a way that goes with the goal and objective of the project.

5.3. Conclusion

The main objective of the study was to assess the actual risk management practice at information technology infrastructure library (ITIL) in commercial bank of Ethiopia. In addition, the study assessed risk planning, risk identification, risk analysis, risk response and risk control practice of the project. Based on the findings mentioned in chapter four analysis part of this study, the following conclusions are drawn.

In the process of risk planning, all stakeholders were not participated and their roles and responsibilities were not clearly defined. In addition, risk management plan didn't include in project plan and the tool and technique mainly used risk planning were meetings and expert judgment. Hence the practice of risk planning was poor in the project.

Regarding project identification, the practice of project team's involvement in the process of risk identification was fair. However, risks were not identified throughout the project lifecycle and there were no risk register that document the identified risks and their characteristics. In addition, the project mainly encountered operational and technical risks and project mainly used assumption analysis and expert judgment followed by SWOT analysis were used by the project as a tools and technique in risk identification.

In risk analysis, risks were prioritized based on their probability of occurrence and impact. However, identified risks were not numerically analyzed on the overall objectives of the project and project documents were not updated after risks were analyzed. Hence, the practice qualitative risk analysis was fair but there were no any trend of quantitative risk analysis

There was a good practice of developing strategies to prevent or mitigate the identified risks. Mitigate and risk transfer was mainly used as a strategy in the project. However, practice developing actions and options to enhance opportunities and to reduce threats to project objectives were poor.

Risks were not audited and reviewed periodically, and risk management was not evaluated throughout project lifecycle. However, practice of risks that occur within the project were controlled and monitored in a way that goes with the goal and objective of the project was fair. In addition, monitoring and evaluations of risks were not a continuous process in the project and meetings were mainly used as a strategy for risk control.

The overall practice of project risk management was poor. Hence, project team had no enough experience in project risk management so that they are not capable to come up with uncertainties since most of project team members were came from functional department they didn't had deep project risk management experience. There was no any formal policy that guides the project team to overcome uncertainties in the project. In addition, project teams didn't taken active training on project risks. Moreover, risks were mainly handed by project manager and the consultant since there was no responsible department for risk handling.

5.4. Recommendation

In order to fill the gaps between the theories of project risk management process and the actual risk practice of CBE's future projects. The following recommendations were provided by the researcher.

- Risk policy and procedure has to be prepared for the specific projects that guide the project team to go through a disciplined risk management process.

- Project team should take active training and development about project risk management to exploit the opportunities and to reduce the threats of uncertainties in the project.
- There should be a document that registers past project risks to learn from for future projects.
- The risk management plan is vital to communicate with and obtain agreement and support from all stakeholders to ensure the risk management process is supported and performed effectively over the project life cycle. Hence, all project stakeholders should participate in the risk planning and the roles and responsibilities of various stakeholders participating in the project should be clearly defined. Moreover, the risk management plan should be integrated with the project plan in order to reduce the consequence of project uncertainties within the project.
- Risks should be identified throughout the project lifecycle and project teams have to actively participate on it.
- CBE has to improve the practice of risk analysis by prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact that enables project managers to reduce the level of uncertainty and to focus on high-priority risks. In addition, the bank has to improve the practice of analyzing the effect of identified risks on overall project objectives numerically that produces quantitative risk information to support decision making in order to reduce project uncertainty.
- Options and actions should be developed to enhance opportunities and to reduce threats to project objectives. Hence, proper risk response strategies should be developed to prevent or mitigate the identified risks.
- Risks should be audited and reviewed periodically, and risk management processes have to be evaluated throughout project lifecycle.

Indeed, CBE should follow formal or standardize risk management process like plan risk management, identify risks, risk analysis(qualitative and quantitative), risk response and risk control processes and put input, output, and tools and techniques to them. So future projects can mitigate or prevent risks and increase opportunities.

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Annex A: Questionnaire

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

MASTERS OF ART IN PROJECT MANAGEMET

Dear participants,

My name is Getnet Assaye; I am studying MA project management at Addis Ababa University School of commerce. For the completion of my degree, I am conducting a research on the project risk management practices of commercial bank of Ethiopia ITIL project.

I kindly request you to take part in this study by filling this questionnaire. Your participation is strictly voluntary, and all responses will be treated as secret. Do not think over whether your answer is right or wrong. Whatever you write will be treated with great confidentiality. For confidentiality purpose do not write your name.

If you have any question regarding the questionnaire please contact me by **getnetassaye96@gmail.com** or **0923005733**.

Your cooperation is highly appreciated!

General Instruction:

- Part I contains questions on demographic information. Please respond by putting a tick (√)in boxes or write the answer in the space provided (if any other).
- PartII contains questions on Project Risk Management Process. Please indicate yourperceived risk management practice by putting a tick (√) at the corresponding column from strongly agree to strongly disagree (i.e. Strongly Agree=5, Agree=4, Neutral=3, Disagree=2, strongly Disagree=1). In addition, Please put a tick (√) to one ofthe most appropriate your choice for other multiple choice questions
- Please attempt all questions.

Part I: Demographic Information

1. Gender: Male □ Female □

2. Age: 21-30years □31-40 years□ 41-50 Years □above 50 Years□

3. Educational Background:

First Degree□Masters□PhD □other, please specify, _____

4. Work Experience in projects:

Below 1 Year □1-2 Years □3-5Years □more than 5 Years□

Part II: Project Risk Management Process

A. Questions on general Project Risk Management Practice

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	risk management is considered in early phase of the project					
2	There is a policy or guideline that recommends how to manage unexpected uncertainties.					
3	Project team members are getting active training and development about project risk management					
4	Project team has deep project experience in risk management.					
5	There is a document that registers past project risks to learn for future projects.					

6. Uncertainties that occur within the project mostly handled by:

a. Project manager
b. Consultant
c. Client
d. Assigned risk manager
e. All team members in the project

7. Risk management is implemented at which stages of the project?

a. Initiation
b. Planning
c. Implementation
d. Monitoring and Evaluation
e. Closure

B. Questions on Risk Planning

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8	Relevant stakeholders are involved in risk management plan and made an agreement.					
9	The roles and responsibilities of various stakeholders participating in risk management are clearly defined.					
10	Risk management plan is included during project planning.					

11. What tool and technique used in risk planning?

a. Analytical Techniques□ b. Expert Judgment□ c. Meetings□

C. Questions on Risk Identification

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12	Risks are identified throughout the project lifecycle.					
13	Project team members are involved in risk identification process.					
14	There is a documentation of identified risk and their characteristics.					

15. What type of risk that the project is highly exposed to?

a. operational □ b. technical□c. schedule □d. budget□e. others □

16. What tool and techniqueprimarily used during risk identification?

a. Documentation reviews □b. Information Gathering □c. Checklist Analysis □

d. Assumptions Analysis □ e. SWOT Analysis□f. Expert Judgment□

D. Questions on Risk Analysis (Qualitative and Quantitative Analysis)

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17	Risks are prioritized based on their probability of occurrence and impact					
18	Identified risks are numerically analyzed on the overall objectives of the project					
19	Project documents are updated after risks are analyzed					

20. What tool and technique primarily used in risk analysis?

a. Risk Probability and Impact Assessment □d. risk categorization□

b. Data Gathering and representation techniques □e. Expert Judgment□

c. Quantitative risk Analysis and Modeling techniques□

21. Risks are primarily analyzed based on:

a. Probability□b. outcome □c. financial impact□d. accomplishment of the objectives□

E. Questions on Risk Response

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22	Actions and options are developed to enhance opportunities and to reduce threats to project objectives.					
23	Strategies are developed to prevent or mitigate all the identified risks.					

24. Risk response strategy that wasprimarily used in the project:

a. Avoid □b. Transfer □c. Mitigate□d. Accept□

F.**Questions on Risk Monitoring and Control**

S. No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25	Risks that occur within the project are controlled and monitored in a way that goes with the goal and objective of the project.					
26	Risks are reviewed periodically					
27	Risk response are audited					
28	Effectiveness of risk management process is evaluated throughout the project					
29	Risk monitoring and control is a continuous process in the project					

30. What tool and technique was primarily used in risk monitoring and control?

a. Risk Reassessment □ b. Variance and Trend Analysis□c. Risk Audit □

d. Technical Performance Measurement □ e. Reserve Analysis □f. Meetings□

Annex B: Interview Questions

1. What is your responsibility in the project? And how long you are working in this project?
2. Does the project have risk management plan? If yes, does it related with the project plan?
3. Is there a policy or guideline that recommends how to manage unexpected uncertainties. If yes, how it helps the project team in risk management?
4. Do project teams get training in risk management? If yes, are team members within the project aware on how to manage risk in a waythat doesn‘t affect the objective or goal of the project?
5. Does the roles and responsibilities of the project team assigned for risk management?
6. Does the project follow standard risk management process (i.e. risk planning, riskidentification, risk analysis, Risk response, monitoring and control)?
7. How risk planning process is performed in the project? What tools and techniques are used?
8. Are project stakeholders participated in the risk planning process of the project?
9. How risk identification process is performed in the project? What tools and techniques are used?
10. How qualitative and quantitative risk analysis process is performed in the project? What tools and techniques are used?
11. How risk response process is performed in the project? What tools andtechniques are used? What risk response strategies are applied in the project?
12. How monitoring and control process is performed in the project? What tools and techniques are used? Is monitoring and control a continuous process?