



ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
SCHOOL OF COMMERCE
DEPARTMENT OF PROJECT MANAGEMENT
(GRADUATE PROGRAM)

**AN ASSESSMENT OF PROJECT RISK MANAGEMENT PRACTICES OF
EDUCATION PROJECTS IN ETHIOPIAN HIGHER EDUCATIONS**

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**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF
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DECLARATION

I, the undersigned graduate student, declare that this thesis is my original work and has not been presented for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

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Statement of Certification

This is to certify that Wondimalenm Geneti has carried out his research work on the topic entitled “An Assessment of Project Risk Management Practices of Education Projects in Ethiopian Higher Educations.” The work is original in nature and is suitable for submission for the award of the M.A. Degree in Project Management.

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ABSTRACT

The main purpose of the study was to explore challenges and opportunities in using continuous assessment in EFL classes at tertiary level. The participants of the study were 14 EFL instructors and 112 first year students in the College of Social Sciences and Humanities at Ambo University. Data were gathered through questionnaires, interview and document analysis. The data that were gathered through closed-ended questions were analyzed quantitatively while that of open-ended questions, interview and document analysis were analyzed qualitatively. The study revealed that the participants of the study, EFL instructors and students, believed that they have got benefits from the implementation of continuous assessment in EFL classes. It also showed that the EFL instructors have not been implementing continuous assessment in adequate way. They have used a limited number of continuous assessment devices and they have not provided appropriate feedback to students. Besides, the study revealed that the implementation of continuous assessment in EFL classes has helped the EFL instructors in identifying slow and fast learners. However, appropriate remedial works and additional stimulation activities have not been given for slow students and fast students. It was also found out in the study that when the EFL instructors score the assessment work of students, they depend on the pre-set criteria and they have a record book for students' assessment activities. However, the record book they use is the same with the traditional assessment record book. The study also indicated that EFL instructors and students face challenges that hinder them from implementing continuous assessment effectively. The challenges they face are basically moderate challenges. The measures that have been taken by EFL instructors and students to overcome the challenges are not satisfactory. Based on the findings recommendations have also been forwarded.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Project risk management has a significant effect in the success or failure of projects. Due to that in modern project management practices especial emphasis is given to project risk management. According to PMBOK (2013) and Kerzner (2003) project risk management is the process that consists of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project. Project risk is an uncertain situation that, if it happens, has positive or negative consequences on different project objectives such as scope, schedule, cost, and quality components. A risk can be a result of single or different causes and, if it happens, it can have one or more impacts.

Generally project risk signifies the effect of uncertainty on the project as a whole. Risks can be known or unknown. Those risks that can be identified and analyzed and create the possibility of planning responses for the risks are known risk. This kind of risks can be managed proactively. Some known risks that cannot be managed proactively, needs to have a contingency reserve. In contrast, it is difficult to manage unknown risks proactively and due to that such kind of risks need management reserve (PMBOK 2013). Therefore, the main purpose of risk management is to enhance the probability and impact of positive events, and in contrast to reduce the probability and impact of negative events in the project.

Since most projects take place in uncertain situations, though it is impossible to completely avoid risks in projects, it is possible to reduce the negative impact of risks to make projects successful if project risk management is implemented effectively. The willingness of organizations and stakeholders to accept varying degrees of risk rely on their risk attitude which determines their tolerance of risk (Kerzner 2003). The commitment of organizations to address risk management proactively and consistently throughout the project is highly essential for the success of projects. Cognizant decision should be made at different levels of organization which implement projects to dynamically identify and practice effective project risk management throughout the project life cycle since risk can happen at the moment a project is initiated. Consequently, a reliable

approach to risk should be established for each project with open and honest communication about risk and its handling (PMBOK 2013 and Project Management Institute 2009).

As risk management is essential on almost all projects, it also needs to be practiced on education projects. Education plays a pivotal role in human, social, political and economic development. Due to that different government and non-governmental organization globally give high emphasis to education projects by spending huge amount of money on it. Currently developing countries are giving especial attention in expanding academic institutions to produce educated human power who engage in development of the countries. Ethiopia is also investing a lot in expanding education institutions throughout the country. Regarding this Tirusew et al. (2018) indicate that in this century Ethiopia needs the education system that plays key roles in transforming the socio-economic systems, particularly the industrialization process that Ethiopia finds itself at the present time.

To attain this goal, the investment on education particularly on higher education is currently huge in Ethiopia. According to Tirusew et al. (2018:3) “Since the formulation of the 1st Growth and Transformation Plan (GTP I), education was given a special attention in the transformation of the economy from agriculture-led to industry-led activity and thereby supporting the manufacturing sector by supplying the required professionals and problem solving technological innovations.” Besides what the government is investing on education, different local and international funding agents are also spending a huge amount of money on education projects each year. However, in developing countries like Ethiopia where the practices of project management are not well developed, different education projects fail due to lack of effective project risk management. In order to overcome such challenges, scientific practice of project risk management on education projects is very essential.

As indicated by Ethiopia’s Growth and Transformation Plan, the role of education is highly crucial to reach a lower middle-income economy by the year 2030. Therefore, the implementation of project risk management on education projects is highly crucial in order to make the education sector successful.

1.2 Statement of the Problem

In recent times, the number of education projects in Ethiopia has been increasing and the government and non-governmental organizations have also been giving much emphasis to the projects as they play a pivotal role in economic development of the country. To achieve its vision of becoming a lower middle income by 2030, Ethiopia has developed the 2nd Growth and Transformation Plan (GTP II). According to Tirusew et al (2018) GTP II aims to achieve an annual average real GDP growth rate of 11 per cent, pursuing aggressive measures towards rapid industrialization and structural transformation such as increasing the productive capacity and efficiency of the economy by rapidly improving quality, productivity, and competitiveness of agriculture and manufacturing industries, and accelerate human capital development and technological capacity building and ensuring sustainability. To achieve these development goals, education plays a pivotal role through application of science, technology and innovations. Achieving these visions require further expansion of access to high quality basic, general and tertiary education.

Besides what the Ethiopian government is doing in expanding different academic institutions, different local and international donors are also involving in education projects at different levels. Especially some higher education institutions in Ethiopia work with different funding organizations to work on different education projects. One of such education projects funded by foreign governments in Ethiopia is called Access. Access is a project funded by the U.S. government to provide a foundation of English language skills, basic computer skills, life skills and community service to talented 13-20 year-olds from economically disadvantaged backgrounds through after-school classes and intensive sessions. The project seeks to equip selected students with strong English language, basic computer, community service and leadership skills that can lead to better jobs and educational opportunities.

Though the number of education projects is increasing recently in Ethiopia, it is complained that many of them are not successful in achieving their purposes. One of the reasons for unattained goals of education projects in Ethiopia and globally can be lack of implementation of effective risk management. Especially when compared with other types of projects, the implementation of project risk management on education projects is very low. Regarding this, Sum and Saad (2017) mentioned that risk management is missing from most aspects of education sectors. Some think

that the concept of risks in education sector seems irrelevant mentioning that risk is normally associated with extreme sports, risky behavior, business and financial world. However, the reality is risk is part of everyday life and academic institutions like any other business are exposed to risks. Therefore, the implantation of project risk management on education projects is highly significant.

Thus, the researcher has been inspired to assess the project risk management practices of education projects in Ethiopian higher education institutions focusing on a project called Access because the researcher observed that participants in this project complain the way risks are managed in this project.

1.3 Research Questions

More specifically the study tries to answer the following basic questions:

- What is the extent to which project risk management is practiced in the project?
- What are the project risk management methods and techniques used?
- What is the effectiveness of the risk management methods and techniques used in the project?

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of this study is to assess the practice of project risk management on education projects in Ethiopian higher education.

1.4.2 Specific Objectives

The study intends to achieve the following specific objectives:

- To identify the extent to which project risk management is practiced in the project.
- To assess the project risk management methods and techniques used.
- To see the effectiveness of the risk management methods and techniques used in project.

1.5 Significance of the Study

In order to effectively attain project goals by overcoming challenges that face during project life cycle, having effective project risk management is highly essential. As a result, different stakeholders who participate in different projects are expected to get necessary understanding of the risks which affect the implementation of different projects. One way of providing such awareness can be through conducting research on the issue. For this reason, assessing the practice of project risk management on education projects in Ethiopian higher education is significant.

Therefore, the findings of this study are expected to benefit:

- 1) Academic institutions in understanding risk and how to handle or manage risks to implement the education projects successfully.
- 2) Different stakeholders such as academic institutions and funding organizations which work on education projects on how to deal with risks that the projects face throughout the project life cycle.
- 3) Government organizations such as Ministry of Education, Ministry of Science and Higher Education and different academic institutions in formulating policies, strategies and plans which assist the effective implementation of education projects.

1.6 Operational Definitions

This part presents definition of key terms related to the study.

Project risk: 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.

Project risk management: the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.

1.7 Scope of the Study

This study is delimited to assessing the project risk management practices of education projects funded by donors in Ethiopian higher education particularly a project called Access. Therefore, its scope is limited to higher education in Ethiopia which have Access project.

1.8 Organization of the Study

The research paper is organized into five chapters. Chapter one is an introductory part contains background of the study, statement of the problem, research questions, objectives of the study, significance of the study, operational definitions, scope of the study and organization of the study. Chapter two discusses review of related literature. The third chapter is about the research design and methodology which is applied in the study. Chapter four presents results/findings of the study and interprets the findings. The final chapter deals with conclusions and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Project Risk

The way project risk is described can vary. According to PMBOK (2013:310) 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.” The definition given here implies that risk can have positive effect which is somewhat contradictory to what most people think since in most cases whenever the term “risk” is used what is thought is the negative effect rather than the positive one. This can show that risk can positively affect projects if it is handled appropriately and systematically. The causes for a risk can be one or multiple and in the same way if the risk happens, it can 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” (PMBOK 2013: 309). In this case identifying the causes of risk as early as possible and taking necessary measures can change the outcome of the risk in the positive one which can make the project successful.

Kerzner (2003:653) defines risk as “a measure of the probability and consequence of not achieving a defined project goal.” Project risk has its origins in the uncertainty present in all projects. Known risks are those that have been identified and analyzed, making it possible to plan responses for those risks. Known risks that cannot be managed proactively, should be assigned a contingency reserve. Unknown risks cannot be managed proactively and therefore may be assigned a management reserve. A negative project risk that has occurred is considered an issue. Individual project risks are different from overall project risk. Overall project risk represents the effect of uncertainty on the project as a whole. It is more than the sum of the individual risks within a project, since it includes all sources of project uncertainty. It represents the exposure of stakeholders to the implications of variations in project outcome, both positive and negative (PMBOK 2013).

Organizations perceive risk as the effect of uncertainty on projects and organizational objectives. Organizations and stakeholders are willing to accept varying degrees of risk depending on their

risk attitude. The risk attitudes of both the organization and the stakeholders may be influenced by a number of factors and according to PMBOK (2013) they are broadly classified into three themes: risk appetite, risk tolerance and risk threshold.

Risk appetite is the degree of uncertainty an entity is willing to take on in anticipation of a reward. On the hand, risk tolerance is to the degree, amount, or volume of risk that an organization or individual will withstand. Risk threshold refers to measures along the level of uncertainty or the level of impact at which a stakeholder may have a specific interest. Below that risk threshold, the organization will accept the risk. Above that risk threshold, the organization will not tolerate the risk.

An organization's risk attitude may include its appetite for uncertainty, its threshold for risk levels that are unacceptable, or its risk tolerance at which point the organization may select a different risk response. Positive and negative risks are commonly referred to as opportunities and threats. The project may be accepted if the risks are within tolerances and are in balance with the rewards that may be gained by taking the risks. Positive risks that offer opportunities within the limits of risk tolerances may be pursued in order to generate enhanced value. For example, adopting an aggressive resource optimization technique is a risk taken in anticipation of a reward for using fewer resources.

Individuals and groups adopt attitudes toward risk that influence the way they respond. These risk attitudes are driven by perception, tolerances, and other biases, which should be made explicit wherever possible. A consistent approach to risk should be developed for each project, and communication about risk and its handling should be open and honest. Risk responses reflect an organization's perceived balance between risk taking and risk avoidance.

To be successful, an organization should be committed to address risk management proactively and consistently throughout the project. A conscious choice should be made at all levels of the organization to actively identify and pursue effective risk management during the life of the project. Project risk could exist at the moment a project is initiated. Moving forward on a project without a proactive focus on risk management is likely to lead to more problems arising from unmanaged threats.

2.2 Project Risk Management

The term project risk management can be defined differently by different scholars. PMBOK (2003:309) states that project risk management “includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.” This indicates that project risk management is not a onetime activity. Rather it is a continuous activity that takes place throughout the project life cycle. The objectives of project risk management are to amplify the chances and impact of positive situations, and reduce the chances and impact of negative results in the project.

Kerzner (2003:655) also agrees with what is stated above by mentioning that “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..... Proper risk management is proactive rather than reactive.” What can be understood from this idea is that project risk management is not what is immediately thought of when the risk happens. Rather it needs thorough planning and should be practiced throughout the project. Besides, Kerzner (2003:655) mentions that “risk management is not a separate project office activity assigned to a risk management department, but rather is one aspect of sound project management.” It must be “closely coupled with key project processes, including but not limited to: overall project management, systems engineering, cost, scope, quality, and schedule.”

2.3 Project Risk Management Processes

Project risk management is not a onetime activity in project. Rather it is an activity that occurs continuously throughout a project. Regarding this Kerzner (2003: 661) indicates that “It is important that a risk management strategy is established early in a project and that risk is continually addressed throughout the project life cycle”. The process of project risk management involves different actions. Different scholars include different issues in it. For instance, according to Kerzner (2003: 661-662) the process includes planning, assessment (identification and analysis), handling, and monitoring. In other way PMBOK (2013: 312) shows that project risk management process deals with planning risk management, identifying risks, performing

qualitative risk analysis, perform quantitative risk analysis, planning risk responses, and controlling risks which are described as follow.

Plan risk Management: The process of defining how to conduct risk management activities for a project.

Identify risks: The process of determining which risks may affect the project and documenting their characteristics.

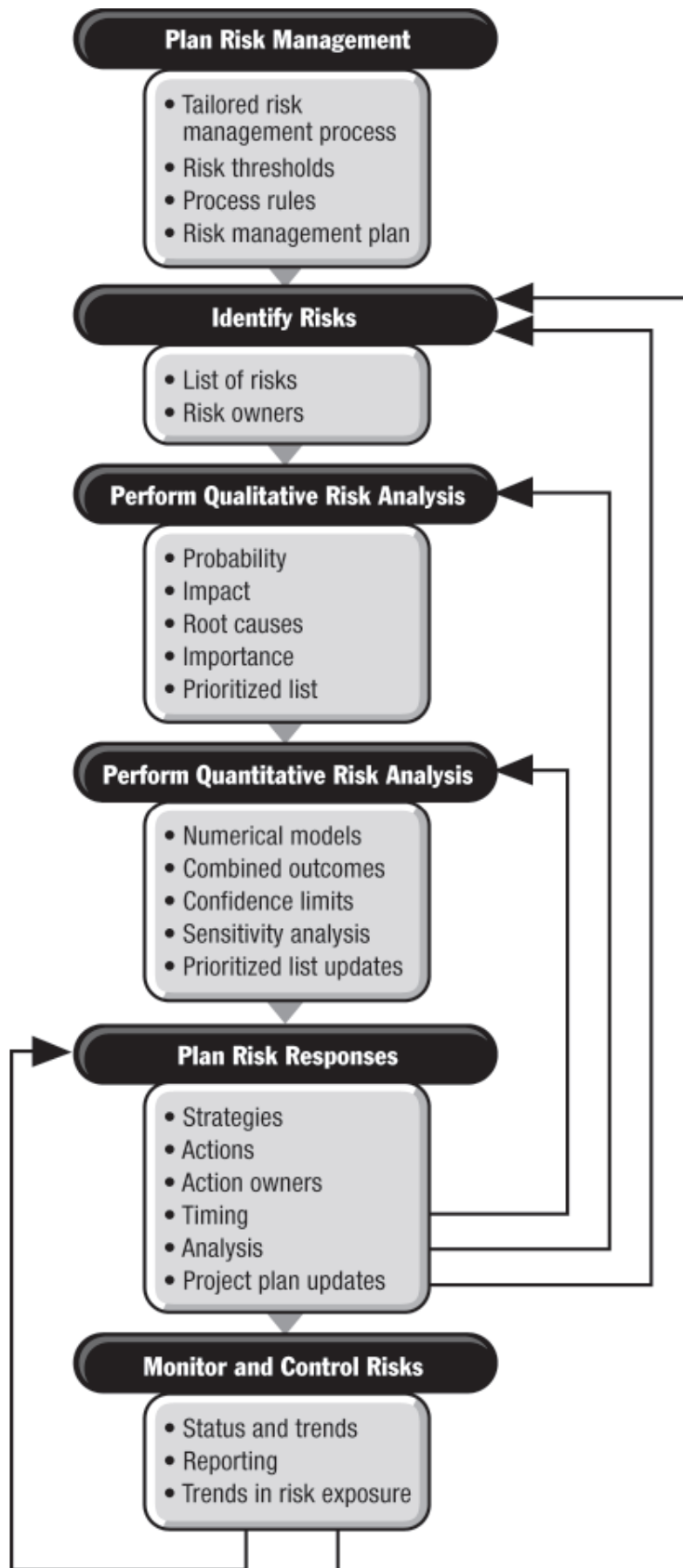
Perform Qualitative risk Analysis: The process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact.

Perform Quantitative risk Analysis: The process of numerically analyzing the effect of identified risks on overall project objectives.

Plan risk responses: The process of developing options and actions to enhance opportunities and to reduce threats to project objectives.

Control risks: 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 above processes of project risk management are put in diagram as follow in Project Management Institute (2009:17) titled Project Risk Management Process Flow Diagram.



As it has indicated earlier and shown in the above diagram, these processes need to act together and interact with processes in other knowledge areas to be effective. Below elements of project risk management process which are indicated by Kerzner (2003) are discussed briefly.

2.3.1 Risk Planning

Effective risk management needs formation of a risk management plan. Plan risk management is one of the basic stage at which the baseline for project risk management is set. According to Kerzner (2003: 662) risk planning is “the process of developing and documenting an organized, comprehensive, and interactive strategy and methods for identifying and analyzing risk issues, developing risk handling plans, and monitoring how risks have changed.” Kerzner stated that this stage is a process to:

- Develop and document an organized, comprehensive, and interactive risk management strategy.
- Determine the methods to be used to execute a program’s risk management strategy.
- Plan for adequate resources.

The plan is used to explain the way the risk management processes needs to be implemented and how they adhere with other project management processes. In other term, the plan describes “the relationships among project risk management, general project management, and the management processes in the rest of the organization” (Project Risk Management 2009:19). Developing the overall risk management strategy for the project, deciding how the risk management processes will be executed, and integrating project risk management with all other project management activities are the objectives of the plan risk management process.

According to Kerzner (2003: 663) risk planning is “iterative and includes the entire risk management process, with activities to assess (identify and analyze), handle, monitor (and document) the risk associated with a program.” Risk Management Plan is the output of the risk planning process. The Risk Management Plan is “the risk-related roadmap that tells the project team how to get from where the program is today to where the program manager wants it to be in the future.” According to Kerzner (2003:663) the key to writing a good Risk Management Plan is to “provide the necessary information so the program team knows the objectives, goals, and techniques of the risk management process: reporting, documentation, and communication; organizational roles and responsibilities; and behavioral climate for achieving effective risk management.” Risk Management Plan is a roadmap and it can be specific or general. It can be

specific in areas such as the assignment of responsibilities for project personnel and definitions and general in other areas to allow users to choose the most efficient way to proceed.

One of the purposes of risk planning is developing a risk management strategy which includes both the process and implementation approach for the project. According to Kerzner (2003:663) early efforts of risk planning

should establish the purpose and objective, assign responsibilities for specific areas, identify additional technical expertise needed, describe the assessment process and areas to consider, define a risk rating approach, delineate procedures for consideration of handling strategies, establish monitoring metrics (where possible), and define the reporting, documentation, and communication needs.

Providing risk management training to project personnel is another important aspect of risk planning. Regarding this Kerzner (2003:663) states that “it is important that risk management training be performed by individuals, whether inside or outside the project, with substantial “real world” experience in making risk management work on actual projects.” Risk management training should be adapted to various groups within the project depending on necessity. Besides, different emphasis can be given for “decision-makers versus working-level personnel and technical versus nontechnical personnel.”

To get the maximum benefit, it is essential to carry out initial risk management planning early in the overall planning of the project, and the corresponding risk management activities integrated into the overall project management plan. It is also important to adapt the risk management plan as the needs of the project and its stakeholders become clearer or change.

To effectively manage project risks, assigning certain budget for project risk management is also recommended though the project risk management processes form an integral part of the overall project management plan. This is essential to better track, control and defend the corresponding costs throughout the project. Regarding this Project Management Institute (2009:19) indicates that “the risk management plan will define the monitoring methods to ensure that the

corresponding expenditures are tracked appropriately, as well as the conditions under which the approved budget for risk management can be modified.”

Risk management is not one time activity in a project. Throughout the project, risk management activities need to be repeated. According to Project Management Institute (2009:19) “the risk management plan should define both the normal frequency for repeating the processes as well as specific or exceptional conditions under which the corresponding actions should be initiated.” The subsequent risk management activities should be incorporated into the project management plan.

2.3.2 Risk Assessment

Risk assessment is “the problem definition stage of risk management, the stage that identifies and analyzes project issues in terms of probability and consequences, and possibly other considerations (e.g., the time to impact)” (Kerzner 2003:663-664). The results of risk assessment are the main input to many subsequent risk management actions. Kerzner indicates that risk assessment is “often a difficult and time-consuming part of the risk management process” as there are no quick answers or shortcuts. Though there are available tools or instruments to assist in assessing risk, no single tool is entirely fitting for any project and often highly misleading if the user does not understand how to modify and apply them or interpret the results. In spite of its complexity, risk assessment is one of the most important phases of the risk management process since the “caliber and quality of assessments” can have a large impact on project outcomes.

2.3.3 Risk Identification

The other important step in risk management process is risk identification. According to Kerzner (2003:664) risk identification can incorporate “a survey of the program, customer, and users for concerns and problems.” It is always inevitable to have risks at some degree in projects. Some of project risks are “cost, funding, schedule, contract relationships, and political risks.” Kerzner

mentions that “cost and schedule risks are often so fundamental to a project that they may be treated as stand-alone risk categories.” The understanding of risks advances over time. As a result, risk identification should continue throughout project phases.

There are several methods for identifying risk. However, according to Kerzner (2003:664-665) the common practice to classify project risk depending on its source, either objective or subjective. Objective sources are “recorded experience from past projects and the current project as it proceeds.” Some examples of objective sources are lessons learned files, program documentation evaluations and current performance data. Subjective sources are “experiences based upon knowledgeable experts.” This includes interviews and other data from subject matter experts.

Another way of identifying risks is based on life-cycle phases which include project approval, preliminary and detailed planning, execution and closure. Kerzner (2003:664) mentions that the total project risk is high in the early life-cycle phases because of the lack of information and the financial risk is the greatest in the later life-cycle phases.

Different sources of information that help recognition of a potential problem can be used for risk identification. Some of the sources of information used for risk identification listed by Kerzner (2003:664-665) are

- Systems engineering documentation
- Life-cycle cost analysis
- Plan/WBS decomposition
- Schedule analysis
- Baseline cost estimates
- Requirements documents
- Lessons learned files
- Assumption analysis
- Trade studies/analyses
- Technical performance measurement (TPM) planning/analysis
- Models (influence diagrams)

- Decision drivers
- Brainstorming
- Expert judgment

Some of these techniques can also be used for other stages in project risk management process. For instance, expert judgment techniques can also be applied for forecasting and decision-making. In using these techniques, the users need to identify the one which can be more suitable for their project since the techniques can have their own advantages and disadvantages based on contexts.

Kerzner (2003) indicates that different methods can be used to identify risks in projects. One of the methods is breaking down project elements to a level where they can perform valid assessments. The information required to do this varies based on the phase of the project. Another method of identifying risk is to create a Work Breakdown Structure (WBS) as early as possible in a project, and use this to evaluate potential candidate risk categories against candidate system. Evaluating risk associated with some key processes such as design and manufacturing that will exist on a project is another approach to identify risks. The project implementers or stakeholders need to identify the methods which can best their project to identify risks.

2.3.4 Risk Analysis

Another important phase of project risk management process is risk analysis. According to Kerzner (2003:668) “Risk analysis begins with a detailed study of the risk issues that have been identified and approved by decision-makers for further evaluation.” Risk analysis has different objectives in project risk management process. Some of its objectives are “to gather enough information about the risk issues to judge the likelihood of occurrence and cost, schedule, and technical consequences if the risk occurs (Ibid).

A variety of techniques can be used as sources of risk analyses. Some of the techniques mentioned by Kerzner (2003:668) are

- Comparisons with similar systems
- Relevant lessons-learned studies
- Experience

- Results from tests and prototype development
- Data from engineering or other models
- Specialist and expert judgments
- Analysis of plans and related documents
- Modeling and simulation
- Sensitivity analysis of alternatives

According to Kerzner (2003:669) describing and quantifying a specific risk and the magnitude of that risk usually requires some analysis or modeling. Some of the tools used in risk analysis are:

- Life-cycle cost analysis
- Network analysis
- Monte Carlo simulation
- Estimating relationships
- Risk scales (typically ordinal “probability” and consequence scales)
- Quick reaction rate/quantity impact analysis
- Probability analysis
- Graphical analysis
- Decision analysis
- Delphi techniques
- Work breakdown structure simulation
- Logic analysis
- Technology state-of-the-art trending
- Total risk-assessing cost analysis (TRACE)
- Process templates

It is very important to change the results of risk analysis into risk levels after performing a risk analysis. Kerzner (2003:669) states that risk ratings are “an indication of the potential impact of risks on a project. They are typically a measure of the likelihood of an issue occurring and the consequences of the issue, and often expressed as low, medium, and high.”

- **High risk:** Substantial impact on cost, schedule, or technical. Substantial action required to alleviate issue. High priority management attention is required.
- **Moderate risk:** Some impact on cost, schedule, or technical. Special action may be required to alleviate issue. Additional management attention may be needed.
- **Low risk:** Minimal impact on cost, schedule, or technical. Normal management oversight is sufficient.

It is also important to consider other factors that can considerably add to the significance of risk issues including frequency of occurrence, time sensitivity, and interdependence with other risk issues in the rating methodology used.

2.3.5 Risk Handling

Risk handling is “the process that identifies, evaluates, selects, and implements one or more strategies in order to set risk at acceptable levels given program constraints and objectives” (Kerzner 2003:662). Risk handling includes “the specifics on what should be done, when it should be accomplished, who is responsible, and associated cost and schedule.” A risk handling strategy is composed of an option and implementation approach. Risk handling options include assumption, avoidance, control (also known as mitigation), and transfer. The most desirable risk handling option is selected, and a specific implementation approach is then developed for this option.

Risk handling includes planning and execution with the objective of reducing risks to an acceptable level. The evaluators who assess risk should begin the process by identifying risks and developing handling options and approaches to propose to the program manager, who selects the appropriate one for implementation. According to Kerzner (2003:681) there are numerous factors that can influence response to risks. Some of them are

- Amount and quality of information on the actual hazards that caused the risk (descriptive uncertainty)
- Amount and quality of information on the magnitude of the damage (measurement uncertainty)
- Personal benefit to project manager for accepting the risk (voluntary risk)
- Risk forced upon project manager (involuntary risk)

- Confusion and avoidability of the risk
- The existence of cost-effective alternatives (equitable risks)
- The existence of high-cost alternatives or possibly lack of options (inequitable risks)
- Length of exposure to the risk

There are different options for risk handling. Some of them are risk assumption, risk avoidance, risk control, and risk transfer.

- **Risk assumption or retention:** This is when project manager knows the risk exists and is aware of the possible consequences. The project manager is willing to wait and see what happens. They accept the risk should it occur.
- **Risk avoidance:** This is the situation in which the project manager will not accept this option because of the potentially unfavorable results. The project manager will either change the design to preclude the issue or change the requirements that lead to the issue.
- **Risk control (i.e., prevention or mitigation):** It is when the project manager says will take the necessary measures required to control this risk by continuously reevaluating it and developing contingency plans or fall-back positions. The project manager will do what is expected.
- **Risk transfer:** In this situation, the project manager will share this risk with others through insurance or a warranty, or transfer the entire risk to them.

In order to be effective in risk handling, the options must be evaluated to choose the appropriate one for each risk issue in the given project.

2.3.6 Risk Monitoring

According to Kerzner (2003:662) risk monitoring is “the process that systematically tracks and evaluates the performance of risk handling actions against established metrics throughout the acquisition process and provides inputs to updating risk handling strategies, as appropriate.” Risk monitoring results can also be used to provide a basis for developing additional risk handling strategies, or updating existing risk handling strategies, and reanalyzing known risks. Besides, there are situations in which monitoring results can also be used to discover new risks and revise some aspects of risk planning. The key to the risk monitoring process is to establish a cost,

performance, and schedule management indicator system over the program that the program manager and other key personnel use to evaluate the status of the program. The indicator system should be designed to provide early warning of potential problems to allow management actions. Risk monitoring is not a problem-solving technique, but rather, a proactive technique to obtain objective information on the progress to date in reducing risks to acceptable levels (Kerzner (2003:686).

Earned value, program metrics, schedule performance monitoring and technical performance measurement are some techniques suitable for risk monitoring. Kerzner (2003:687) describes each technique as follows.

- **Earned value (EV):** This uses standard cost/schedule data to evaluate a project's cost performance (and provide an indicator of schedule performance) in an integrated fashion. It provides a basis to determine if risk handling actions are achieving their forecasted results.
- **Program metrics:** These are formal, periodic performance assessments of the selected development processes, evaluating how well the development process is achieving its objective. This technique can be used to monitor corrective actions that emerged from an assessment of critical program processes.
- **Schedule performance monitoring:** This is the use of program schedule data to evaluate how well the program is progressing to completion.
- **Technical performance measurement (TPM):** TPM is a product design assessment that estimates, through engineering analysis and tests, the values of essential performance parameters of the current design as affected by risk handling actions.

Kerzner (2003) states that the indicator system and periodic reassessments of project risk should provide the project with the means to incorporate risk management into the overall project management structure. It is also indicated that a well-defined test and evaluation project is often a key element in monitoring the performance of selected risk handling approaches and developing new risk assessments.

Though it is important to stress a comprehensive, structured risk management process, it is also highly essential that appropriate organizational and behavioral considerations exist so that the process will be properly implemented. While no single set of course of action will be sufficient, it is necessary that risk management roles and responsibilities be defined in the risk management process and carried out in the project.

2.4 Benefits of risk management

The benefit of risk management is pivotal in making projects successful. In the uncertain world and highly flexible project situations, it is highly difficult for projects to be effective without implementing proper project risk management. Some of the major benefits of project risk management are summarized below (Gwangwava et al., 2014)

- a) It helps decision makers to make informed choices, priorities actions and distinguish among alternative courses of action.
- b) It explicitly takes account of uncertainty, the nature of uncertainty and enables determination of how it can be addressed.
- c) A systematic, timely and structured approach to risk management contributes to efficiency and to consistent, comparable and reliable results.
- d) It recognizes the capabilities, perceptions and intentions of external and internal people that can facilitate or hinder achievements of the organization's objectives.

2.5 Good Risk Management Practice

Project risk management is an essential element of project management and it boosts the significance of the other components of project management processes. Consequently, it is supposed to be carried out in a way that is suitable to the project. In implementing project risk management, business challenges and the multi-cultural environment such as “joint venture projects and customers, suppliers, and workforces spread around the globe” needs to be recognized (Project Management Institute 2009:5). This shows that project risk management is expected to be performed in line with the internal and external requirements of the organization. The Project Risk Management process that brings changes in the project management plan can involve decisions at different level of management to relocate “personnel, establish or modify budgets, make commitments to others outside the project, interact with regulators, and comply with the rules of accounting and law” (Ibid).

According to Project Management Institute (2009:5), in conducting project risk management, considering the project management code of ethics or conduct is essential. Accordingly, some of

the basic features of effective project risk management are honesty, responsibility, realism, professionalism and fair dealing with others. Thus, successful project risk management benefits from vigorous communication and consultation with stakeholders. This enables agreement among stakeholders that project risk management must be conducted in a “realistic” and “objective” means and must not be influenced by political or other unreasonable influences.

Project Management Institute suggests that though the degree, intensity of detail, complexity of tools, and amount of time and resources applied to project risk management can be in proportion to the features of the project under management and the significance that they bring to the outcome, project risk management needs to be conducted on all projects. This implies that a huge project that offers significance to an important customer would need more resources, time, and attention to project risk management than a smaller, short-term, internal project that can be carried out in the setting with a flexible deadline.

This implies that the project risk management processes should be scaled to be suitable to the project under management during the plan risk management process and reviewed from time to time to decide whether the decisions made in that process remain appropriate.

2.6 Critical Success Factors for Project Risk Management

There are different success factors for project risk management. Project Management Institute listed out six general criteria which include recognizing the value of risk management, individual commitment/responsibility, open and honest communication, organizational commitment, risk effort scaled to project and integration with project management.

1. **Recognizing the value of risk management:** Different benefits of project risk management which include “a positive potential return on investment for organizational management, project stakeholders, project management, and team members” needs to be recognized.

2. **Individual Commitment/Responsibility:** It is believed that risk management is the responsibility of every stakeholder. Therefore, every stakeholder should all accept responsibility for undertaking risk-related activities when it is necessary.
3. **Open and Honest Communication:** There should be clear and honest communication regarding project risk among concerned stakeholders. If there is a communication gap about project risk that can decrease the success of project risk management in terms of “proactive approaches” and “effective decision-making”.
4. **Organizational Commitment:** To establish organizational commitment, aligning risk management with the organization’s goals and values is essential. Since managing some of the risks will need approval from others at levels above the project manager, project risk management may require a higher level of managerial support than other project management disciplines.
5. **Risk Effort Scaled to Project:** Project risk management activities needs to be reliable with the value of the project to the organization and with its level of project risk, its scale, and other organizational constraints. Especially, the cost of Project Risk Management should be appropriate to its potential value to the project and the organization.
6. **Integration with Project Management:** Project risk management coexists with other project management processes. As a result, successful project risk management entails the correct implementation of the other project management processes.

Project Management Institute summarizes critical success factors for project risk management in the following figure.



Project Management Institute (2009:6)

2.7 Stakeholder Risk Attitudes

The attitudes of stakeholders towards project risk can highly influence the way project risk is managed and stakeholders risk attitude is influenced by a number of factors. Some of the factors which are given by Project Management Institute (2009:10) are the scale of the project within the range of stakeholders' overall activities, the strength of public commitments made about the performance of the project, and the stakeholders' sensitivity to issues such as environmental impacts and industrial relations." Stakeholder risk attitudes often bring "a desire for increased certainty in project outcomes, and may express a preference for one project objective over another."

Organization's culture also affects the way risk is viewed. The organization's culture affects the way risk management is applied. Therefore, in risk management planning, recognizing the attitudes of stakeholders toward risk is an essential component to "optimize project success and stakeholder satisfaction with the project's results." In this case, the stakeholders' attitudes need to be "identified and managed proactive and deliberate throughout the Project Risk Management process". Usually the stakeholders' attitude can vary from project to project and even a stakeholder can adopt diverse risk attitudes at different stages of the same project. The stakeholders' attitude can also be influenced by the team of the project.

2.8 Project Risk Iterative Process

At different stages of project management, the understanding about risks can vary depending on the availability of information. In this regard, "the amount of information available about risks will usually increase as time goes on". Some of the risks forecasted at the planning stage may happen while others may not and even risks which were not expected can arise and the features of those already known can vary. To overcome such a complex nature of risks, the project risk management processes needs to be repeated and the risk plans needs to be revised throughout the project lifecycle.

Regarding this, Project Management Institute (2009:11) indicates that for project risk management to be effective, "the identification and analysis of risks should be revisited periodically, the progress on risk response actions should be monitored, and the action plans adjusted accordingly." It is also stated that "the frequency and depth of reviews and updates will depend on the nature of the project, the volatility of the environment in which the project is being implemented, and the timing of other project management reviews and updates" (Ibid.) Therefore, different stakeholders who involve in the project management should closely follow up the status of risks at different stages of the project and take necessary measures to manage the risks effectively.

2.9 Communication in Project Risk Management

The role that effective communication plays in project risk management is pivotal. To be effective, different modes of communications can be used depending on the nature and complexity of projects the lifecycles of the project. The inputs that are obtained from different stakeholders highly affect the risk identification and analysis and the effectiveness of the inputs depends on honest and effective communication among the stakeholders. According to Project Management Institute (2009:11):

“communication of the results of the project risk management process should be targeted to meet the specific needs of each stakeholder and should be reflected within the overall project communications strategy with each stakeholder’s responsibility and role in risk management identified and agreed-upon.”

There are situations in which communication in project risk management is overlooked and this consequently affects the success of the project negatively. In this regard, the team in the given project is expected to play its role in effectively communicating different aspects of the risks they observe while implementing the project. Organizations also need project risk management communication strategy to properly manage different risks they face at different stages of project life cycle.

2.10 Responsibility for Project Risk Management

Different stakeholders who participate in the given project can have different roles and responsibilities. Each project team needs to understand its roles and responsibilities concerning project risk management as project risks can influence project objectives and this in turn can affect the overall success of the project. To be effective as a team, “project risk management must be included as an integral part of all other project processes” (Project Management Institute 2009:12).

The positions that the stake holders and project team members have in the given project and “their relationship to project objectives” determine the specific roles. In order to be successful in managing project risks, the stakeholders’ specific roles and responsibilities for project risk management need to be clearly described and communicated and every stakeholder and project team members must be responsible and accountable for results. This can be determined by

assigning “responsibility for specific activities within the risk process, as well as for resulting actions required to implement agreed-upon responses.” Besides, assigning responsibility can help to guarantee risk-related lessons are captured for future use. Therefore, the project manager or concerned bodies needs to work closely with different stakeholders and project team members to ensure that everybody clearly understands their responsibility to manage the risks appropriately and effectively.

2.11 Project Manager’s Role for Project Risk Management

As it has been described above, all stakeholders and project team members who involve in the given project should specifically know their roles and responsibilities in managing project risks. Especially the role of project manager in project risk management is highly significant. The project manager has overall responsibility for delivering a successful project which fully meets the defined objectives. The project manager is accountable for the day-to-day management of the project, including effective risk management. According to Project Management Institute (2019:12) some of the roles of the project manager are the following.

- Encouraging senior management support for Project Risk Management activities.
- Determining the acceptable levels of risk for the project in consultation with stakeholders.
- Developing and approving the risk management plan.
- Promoting the Project Risk Management process for the project.
- Facilitating open and honest communication about risk within the project team and with management and other stakeholders.
- Participating in all aspects of the Project Risk Management process.
- Approving risk responses and associated actions prior to implementation.
- Applying project contingency funds to deal with identified risks that occur during the project.
- Overseeing risk management by subcontractors and suppliers.
- Regularly reporting risk status to key stakeholders, with recommendations for appropriate strategic decisions and actions to maintain acceptable risk exposure.
- Escalating identified risks to senior management where appropriate: such risks include any which are outside the authority or control of the project manager, any which require input or

action from outside the project, and any for which the release of management reserve funds might be appropriate.

- Monitoring the efficiency and effectiveness of the Project Risk Management process.
- Auditing risk responses for their effectiveness and documenting lessons learned.

The above lists which indicate the roles and responsibilities of the project manager can show that project manager plays a highly pivotal role in managing project risks and in leading project team members and different project stakeholders to effectively attain their roles and responsibilities in project risk management process. Therefore, project manager is highly expected to know his/her responsibilities clearly in project risk management.

2.12 Risks in Education Projects

Some risks can be shared in all types of projects while others are distinctively observed in specific projects. Education projects also share common risks with other projects though some are particular to education projects. Higher Education Sector Risk Profile (2018:1) states that the higher education sector is riskier now than it has ever been.

However, when compared to different projects, the practice of project risk management in education sector is relatively low. Concerning this, Sum and Saad (2017) indicated that risk management is missing from most aspects of higher education management. They stated that some think that the concept of risks in education sector seems irrelevant mentioning that risk is normally associated with extreme sports, risky behavior, business and financial world. According to Sum and Saad (2017:130) some of the reasons for such wrong assumptions are that academic institutions are

viewed as ivory towers, isolated and separated from the corporate world. A university is viewed as a place for deep thinking and discussing matters of philosophy, theories and ideas. It is a place to teach and develop young minds of future's leaders and managers

According to Sum and Saad (2017) the reality is, however, risk is part of everyday life and academic institutions like any other business are exposed to risks. Mitroff et al. (2006) sited in

According to Sum and Saad (2017) argued that despite their core education mission, higher institutions are more like cities in terms of numbers and variety of services they provided. As a result, institutions of higher education are complicated businesses with millions of dollars at stake. Raanan (2009) cited in Sum and Saad (2017) emphasized that academic institutions behaved as if the traditional way of work were guaranteed forever. However, academic institutions could not be more in error in their perspective regarding risks. In support of this idea Project Management Institute (2009:6) states that “project risk management should be conducted on all projects.”

The top three risks for higher education are regulatory and legislative changes, economic slowdown and damage to brand or reputation (Global Risk Management Survey AON 2013 cited in Sum and Saad (2017). Cassidy et al. (2001) in Sum and Saad (2017:132-133) described five types of risk faced by higher education. The risks are:

- i. **Strategic Risk.** Risk that affects an organization’s ability to achieve its goals. For example, tuition-dependent university’s strategy is to expand its student-enrolment into new markets and effectively managing its financial aid budget. How the university can assesses and manage its risk? How well does the university understand its competitive environment so that it can effectively attain its strategic goals?
- ii. **Financial Risk.** Risk that may result in a loss of assets. For example, a university with a historically conservative endowment and investment philosophy decides to invest more heavily in foreign investments and private equity funds with multiple investment managers, while entering into new hedging arrangements. How does the university manage the potential market and credit risk that may negatively impact the university’s investments? Will the market perform as expected?
- iii. **Operational Risk.** Risk that affects an ongoing management process. For example, a university has recently implemented new administrative systems such as general ledger, payroll and human resources or student systems. The systems implementation involved changes to business processes with respect to transaction processing by decentralized department administrators and staffs. How does the university manage the risk that its staffs are not effectively processing and monitoring transactions in the new environment? How can it put the new system into operation most effectively?
- iv. **Compliance Risk.** Risk that affects compliance with externally imposed laws and regulations, as well as with internally imposed policies and procedures concerning safety or conflict of interest. For example, an Academic Medical Center (AMC) with significant research and clinical activities is responsible for complying with an ever-changing body

of federal rules and regulations and their interpretation. How does the AMC ensure that its principal investigators, physicians, and staffs are aware of and complying with rules and regulations?

v. Reputation Risk. Risk that affects an organizations' reputation, brand or both. The risk may result from failure to effectively manage any or all of the other risk types. Reputation risk involves perception. For example, a university is establishing several satellite campuses in Europe. The campuses will be financed with donor funds as well as with funds received from the local country. The university's faculty will be teaching on the campuses. How does the university manage the risk that ineffective management of its new global venture might tarnish its prestigious brand?

Higher Education Sector Risk Profile (2018:1) also listed the top five most significant risk areas in higher education from 2014 to 2018. The risks are put in the table below. What is observed in the table is that the significant top five risks observed can vary from year to year while others occur almost every year. Even some of the risks related to certain countries. For instance, Brexit which is mentioned as one of the top five risks in 2017, is specifically the risk for Europe and may not directly affect other countries higher education.

	2014	2015	2016	2017	2018
1	Student recruitment	Student recruitment	Student recruitment and financial sustainability	Government policy and political landscape	Pensions
2	Research funding and quality	Research funding and quality	Government policy, public funding and sector reform	Brexit	Government policy/political landscape
3	Pension deficits and affordability	Funding body grant reductions	Investment in IT, cyber security, data and management information	Financial sustainability	Student recruitment
4	Tuition fee pricing	Government policy and political landscape	Significant investment and transformational change programmes	Student recruitment	Reputation
5	Information systems and technology	Pension deficits and affordability	Research funding and quality	Organizational change and transformation programmes	Information security/cyber

Top 5 risks from 2014 to 2018 in Higher Education (Source: Higher Education Sector Risk Profile (2018:2))

What can be observed from different scholars idea regarding risk in education sector is that though risk can highly affect education projects, risk management in education projects has not been given due emphasis.

2.13 Empirical Literature Review

There are some local studies which were conducted on the area of project risk management. Most of them focused on construction and business or banking projects. Frezewd (2016) studied the practice of project risk management in Batu ad Dukem Town water supply projects. Descriptive research method was employed in this study. Some of the conclusions of this study was that there is no policy or guideline that is designed on how to manage risks in the projects. A standard risk management process also does not exist within the projects. Even though, relevant stakeholders are involved in the planning process of the projects, thorough planning is not performed.

Worku (2016) studied Assessment and Evaluation of best risk management practices” of commercial banks in Ethiopia based on fifteen commercial banks operating in Ethiopia. The objective of the study was to critically examine determining factors of best risk management practices of Ethiopian commercial banks focusing on six independent variables out of which five variables had positive significance impact on the dependent variable of risk management practice.

The study conducted by Mesfin (2014) dealt with the study of construction contract risk management practices in Ethiopian building construction projects. The objectives of the research were to identify the level of use of construction contract risk management techniques in Ethiopian building projects, to test the level of awareness of different contractual parties involved in Ethiopian building construction projects and to study the effect of different areas and causes of risk in meeting project objectives. The research finding indicated that most of the parties involved in the Ethiopian building construction projects have heard of the concept of risk management but lack adequate knowledge about the principles of the risk management.

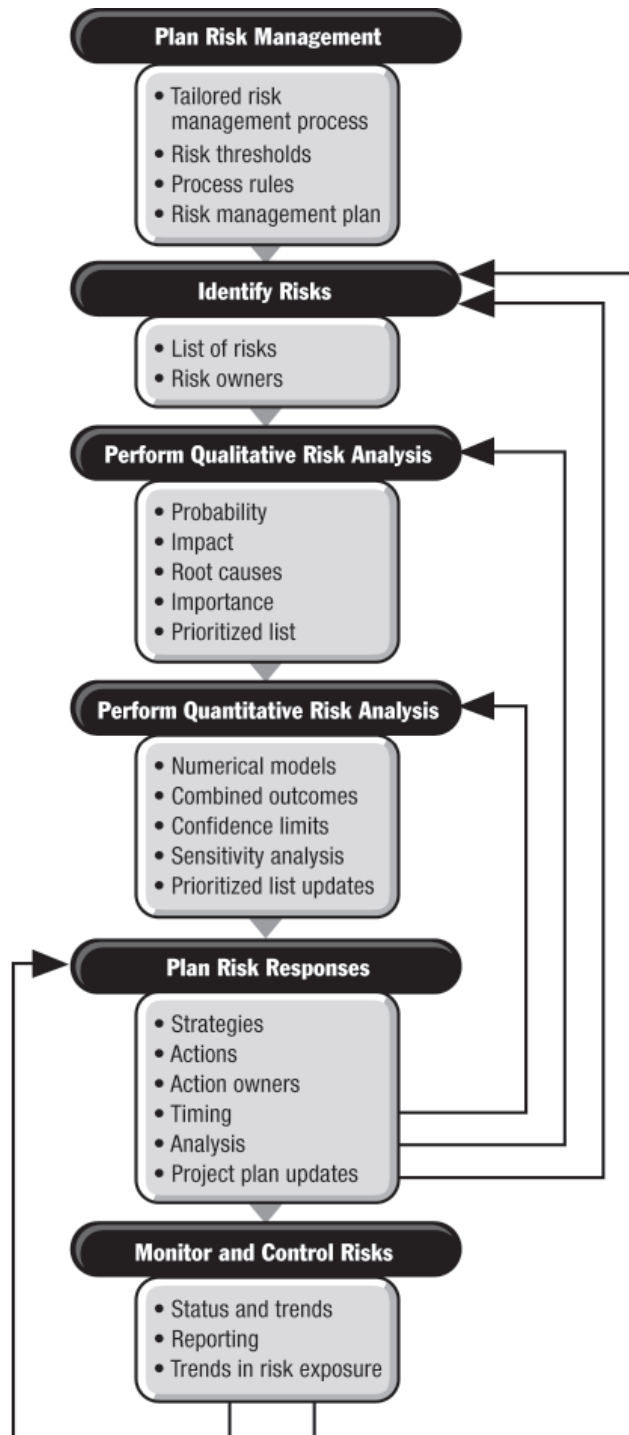
Mekasha (2011) studied credit risk management and its impact on performance on Ethiopian commercial banks. This research objective was formulated in order to gain a better understanding of credit risk management and its impact on performance. The study used

quantitative research design specifically survey method. The study concluded that banks with good credit risk management policies have a lower loan default rate and relatively higher return on asset.

2.14 The Conceptual Framework of the Study

The conceptual framework for this study is derived from different literature reviews related to project risk management. Especially the idea taken from Kerzner (2003), PMBOK (2013) and Project Management Institute (2009) which states that 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 and project risk management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.

The following diagram taken from Project Management Institute (2009:17) best describes the conceptual framework this study relies on.



CHAPTER THREE

RESEARH METHODOLOGY

3.1. Research Design

The study is aimed at assessing the project risk management practices of education projects in Ethiopian higher education focusing on a project called Access. In order to attain this purpose, a descriptive method was employed as the study requires describing the existing practices of project risk management of education projects. In this method, both quantitative and qualitative data was used. The quantitative data was obtained through questionnaire (closed-ended questions) and the qualitative data was gathered through open-ended questions and interview.

3.2. The Study Area

The study was conducted in government higher education institutions in Ethiopia where the Access project is implemented. The higher education in Ethiopia which have the Access project are Bahir Dar University, Haramya University, Jimma University, Hawassa University, Ambo University, Dire Dawa University and Debre Berhan University.

3.3 Sample and Sampling Techniques

The general objective of the study is to assess the project risk management practices of education projects in Ethiopian higher institutions. To achieve the purpose of this study, the target population was individuals who involved in Access project in Ethiopia. In public universities in Ethiopia which have Access project, there are 40 individuals who are part of the project implementing team. Seven of them are project managers. All of them were selected to fill a questionnaire since the number was manageable for data collection through questionnaire. Out of 40 questionnaire distributed to the sample 36 of them which is 90% were received. Five project managers were selected randomly for interview.

3.4 Data Collection Instruments

In order to achieve the purpose of this study, questionnaire and interview were used to collect a data.

A questionnaire was designed from related researches and literature. Questionnaire was used as the main data collection instrument for this study and interview was used to triangulate the data obtained through the questionnaire. The researcher gave drafts of the questionnaire and interview questions to his research advisor and colleagues. Feedback from these individuals resulted in further refinement to the questionnaire. Based on the feedback, the researcher revised the questionnaire and interview questions before starting collecting the data.

The questionnaire had four parts. The first part of the questionnaire focused on getting the respondents background information such as level of education, their role in the project and number of years they involved in the project. The second part consisted of 21 Likert scale format questions which are related to assessing the practice of risk planning, risk identification, risk analysis, risk response and risk monitor and control. The third part of the questionnaire had six multiple choice questions to supplement questions in part two. The final part of the questionnaire consisted of two open-ended questions to get some further responses from the respondents.

The researcher designed interview guide for the samples who were selected for the interview. The interview guide contained nine semi structured questions which are designed from literature and previous related researches. The interview is aimed in triangulating the data that was obtained through the questionnaire.

3.5. Data Collection Procedures

The data needed for this study was collected through questionnaire and interview based on the following procedures. First, the final version of the questionnaire was distributed to the respondents. The questionnaire was distributed in person and by email. After data collection through questionnaire was completed, the researcher conducted interview with the selected sample.

3.6. Methods of Data Analysis

In order to assess the practices of project risk management of education projects in Ethiopian higher education particularly a project called Access, the data gathered through questionnaire and interview was analyzed in the following ways.

First, responses of the data that was gathered through closed ended questions was tallied, tabulated and presented in frequency counts. Then percentages was calculated and used to analyze the responses based on the frequency counts. Open ended questions were analyzed qualitatively based on the similarities of responses obtained from the respondents.

The data that was gathered through interview was transcribed. After that the interview was organized according to the similarities of data in order to make the analysis easier. The interview was analyzed qualitatively. Then the data that was obtained through the questionnaire and interview were triangulated depending on their similarities in the results and discussions part of the study.

3.7 Validity and Reliability Issues

To ensure the validity and reliability of the data used in this study, the researcher tried to design the instruments from reliable sources such as published books, articles and previously done researches in the area of the study. Besides, the researcher had got feedback for the questionnaire and interview questions from the research advisor to minimize errors in the instruments that can affect the reliability and validity of the study. The questionnaire was also pilot tested on individuals who were involving in other projects before being distributed to the participants of the study.

3.8 Ethical Issues

The researcher believes that the study was conducted by sticking to the research ethics. To assure the ethics of the study, the purpose of the study was clearly described in questionnaire and during interview to the respondents and the response was used only for the purpose of the study. The responses were also kept confidential.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

As it has been mentioned in the previous chapter, the purpose of this study is to explore the risk management practices of education projects in Ethiopian higher education particularly a project called Access. In order to attain this purpose, the results and discussions of the data obtained through questionnaire and interview are presented in this chapter.

4.2 Results and Discussions of the Questionnaire

In this section, in order to make the analysis easier, the data obtained from the sample through questionnaire is categorized into nine parts. Each of them is presented below.

4.3 General Information of the Respondents

The first part of the questionnaire focuses on general information of the respondents including their level of education, their roles in the project and work experience. The responses of the respondents are presented in the following table followed by the discussion.

Table 1: Respondents level of education, roles in the project and work experience

No.	Item and response	Frequency	Percentage
1	What is your level of education?		
	a. Diploma	0	0
	b. First degree	2	5.56%
	c. Postgraduate degree	34	94.44%
	d. Others	0	0
2	What is your job role in Access project?		
	a. Project manager	5	13.89%
	b. Project implementation team	31	86.11%
	c. Other, specify	0	0
3	How long have you been involved in this project?		

	a. Below 2 years	13	36.11%
	b. Between 2 and 5 years	23	63.89%
	c. Over 5 years	0	0

All of the respondents have university degree. 94.44% of them have postgraduate degree while the remaining 5.56% have undergraduate degree. 86.11% of the respondents for the questionnaire are project implementation team while 13.89% of the respondents are project managers. Each project site has a project manager. More than half of the respondents, 63.89%, have been involved in the project for two to five years while 36.11% have less than two years involvement in the project.

4.4 General Information about Project Risk Management

There are four questions in the questionnaire which ask whether the project has a policy or guideline to manage risks, whether the project has a standard risk management process, if there is a responsible person or department that deal with risk management and if risk management is treated as a continuous process in the project. The responses for these questions are presented in the table below.

Table 2: Responses for general information about project risk management

No	Statement	Frequency	Percentage
1	Access project has a clear policy or guideline that recommends how to manage unexpected uncertainties or risks.		
	Strongly agree	4	11.11%
	Agree	17	47.22%
	Uncertain	9	25%
	Disagree	6	16.67%
	Strongly Disagree	0	0
2	The project has a defined or standard risk management process.		

	Strongly agree	2	5.56%
	Agree	13	36.11%
	Uncertain	18	50%
	Disagree	2	5.56%
	Strongly Disagree	1	2.78%
3	Responsible person or department is assigned for Access project to handle risk when it occurs.		
	Strongly agree	5	13.89%
	Agree	14	38.89%
	Uncertain	12	33.33%
	Disagree	2	5.56%
	Strongly Disagree	3	8.33%
4	Risk management is treated as a continuous process in the project.		
	Strongly agree	2	5.56%
	Agree	4	11.11%
	Uncertain	13	36.11%
	Disagree	14	38.89%
	Strongly Disagree	3	8.33%

As it can be observed in the above table, 11.11% of the respondents strongly agree that Access project has a clear policy or guideline that recommends how to manage unexpected uncertainties or risks while 47.22% of the respondents agree to this statement. The total of the respondents who strongly agree and agree is 58.33%. Only 16.67% of the respondents disagree to this statement while 25% are uncertain. Since more than half of the respondents strongly agree and

agree, the response can indicate that the Access project has a clear policy or guideline that recommends how to manage unexpected uncertainties or risks.

For the second statement which states the project has a defined or standard risk management process, 50% of the respondents replied that they are not certain while 5.5% and 36.11% of the respondents replied strongly agree and agree respectively. The total number of respondents who disagree and strongly disagree to this statement is 8.34%. From this it is possible to interpret that though the Access project has a policy or guideline that recommends how to manage unexpected uncertainties or risks, the risk management process in the guideline is not well defined. In support of this idea, in reply to interview question which asks whether the project has a standard risk management process to be followed, most project managers indicated that they do not have a standardized risk management process to follow. They mentioned that they rather depend on their own experience and knowledge to manage risks.

52.78% of the respondents strongly agree and agree that responsible person or department is assigned for Access project to handle risk when it occurs while only 13.89% of the respondents disagree and strongly disagree to this statement. The remaining 33.33% of the respondents are uncertain about this issue. What is also identified during the interview indicate that the project manager with a project implementing team is a responsible person for handling risks but no one is specifically assigned for this project as a project risk manager.

Regarding treating risk management as a continuous process in the project, 47.22% of the respondents disagree and strongly disagree that risk management is treated as a continuous process. 36.11% of the respondents are uncertain about this issue and only 16.67% of the respondents agree and strongly agree to this statement. This can indicate that risk management is not treated as a continuous process in the project. In a reply to a related interview question, the project managers also mentioned that they manage risk when they happen rather than treating it as a continuous process. One of the interviewee said, "If a risk happens we intervene on the spot. Otherwise we don't speculate risks."

4.5 Project Risk Management Planning

Questions in table 3 below deal with project risk management planning. Under this category, there are 6 Likert-scale questions, item five to ten in the questionnaire. This part presents the discussion of these questions.

Table 3: Responses regarding project risk management planning

No	Statement	Frequency	Percentage
5	Careful planning is done to perform risk management in the project.		
	Strongly agree	2	5.56%
	Agree	6	16.67%
	Uncertain	9	25%
	Disagree	14	38.89%
	Strongly Disagree	5	13.89%
6	Relevant stakeholders are involved in the planning and performing of risk management.		
	Strongly agree	7	19.44%
	Agree	11	30.56%
	Uncertain	12	33.33%
	Disagree	5	8.33%
	Strongly Disagree	1	2.78%
7	An expert judgment or meetings are considered while planning for risks that might occur in the project.		
	Strongly agree	6	16.67%
	Agree	15	41.67%
	Uncertain	11	30.56%
	Disagree	4	11.11%
	Strongly Disagree	0	0
8	Environmental factors are included as an input to plan for uncertainties or risks.		
	Strongly Agree	3	8.33
	Agree	12	33.33%
	Uncertain	19	52.78%

	Disagree	0	0
	Strongly Disagree	2	5.56%
9	Team members in the project receive training or have enough knowledge about how to handle uncertainties or risks.		
	Strongly agree	2	5.56%
	Agree	13	36.11%
	Uncertain	10	27.78%
	Disagree	9	25%
	Strongly Disagree	2	5.56%
10	Risk management plan is incorporated with the project plan.		
	Strongly agree	3	8.33%
	Agree	15	41.67%
	Uncertain	16	44.44%
	Disagree	0	0
	Strongly Disagree	2	5.56%

In table 3 item 5 shows that 5.56% of the respondents strongly agree and 16.67% agree that careful planning is done to perform risk management in the project. 25.56% of the respondents are uncertain about this issue. The remaining 52.78% of the respondents disagree and strongly disagree to the statement. Based on this result it can be implied that majority of the respondents disagree that careful planning is done to perform risk management in the project. However, what most of the project managers replied to interview question regarding planning is different from the response of the questionnaire. Most of the project managers mentioned that carefully planning is done to perform the project risk management. Since most of the planning is done by the project managers, the managers can have positive attitude towards the planning while other project implementing team have opposite view. That can be the reason for disagreement of the responses. This shows that more involvement of different stakeholders is essential to overcome such contradictions.

For item 6, 50% of the respondents strongly agree and agree while 33.33% are uncertain. The remaining 11.11% of the respondents disagree and strongly disagree regarding the stakeholders involvement in the planning and performing of risk management. The response implies that stakeholders' involvement in the planning and performing of risk management is somewhat

good. For a related question in interview, project managers also confirmed that the involvement of team members in planning and performing of risk management is good.

A total of 58.34% of the respondents strongly agree and agree that an expert judgment or meetings are considered while planning for risks that might occur in the project. Only 11.11% disagree to this item while 30.56% are uncertain. From this it is possible to conclude that expert judgment or meetings are considered while planning for risks.

For item 8 which asks whether environmental factors are included as an input to plan for uncertainties or risks, the number of respondents who strongly agree and agree are less than half (41.66%). 52.78% of the respondents are uncertain about the inclusion of environmental factors while only 5.56% strongly disagree to the statement. This can imply that the inclusion of environmental factors as an input to plan for uncertainties or risks is not that much adequate.

Only 41.67% of the respondents strongly agree and agree that team members in the project receive training or have enough knowledge about how to handle uncertainties or risks. The remaining 58.33% are uncertain, disagree or strongly disagree to this item. In the open ended question in the questionnaire (question 29) which asks for recommendations to improve project risk management one of the frequently mentioned issue is also training. This can show that the project team members do not have enough knowledge on how to handle risks and need more training to fill that gap.

For item 10 in the above table which asks whether risk management plan is incorporated with the project plan, only 5.56% of the respondents strongly disagree while 44.44% of the respondents are unsure and the remaining 50% strongly agree and agree to the item. This can imply that risk management plan is incorporated with the project plan.

4.6 Project Risk Identification

Question related to project risk identification is presented and discussed below. Question number 11, in the questionnaire, deals with project risk identification.

Table 4: Responses regarding project risk identification

No	Statement	Frequency	Percentage
11	All team members in the project play a role in identifying risk.		
	Strongly agree	4	11.11%
	Agree	9	25%
	Uncertain	15	41.67%
	Disagree	6	16.67%
	Strongly Disagree	2	5.56%

The item in table 4 focuses on project risk identification and only a total of 36.11% of the respondents strongly agree and agree that all team members in the project play a role in identifying risk while 41.67% of the respondents are not certain about the issue. The remaining 22.23% of the respondents disagree and strongly disagree to the statement. The response implies that all team members role in identifying risks in the project is not that much satisfactory.

4.7 Project Risk Analysis

This part deals with project risk analysis. Three questions focus on this issue. Responses of the research participants for the questions concerning project risk analysis are discussed below.

Table 5: Responses regarding project risk analysis

No	Statement	Frequency	Percentage
12	Characteristics of the risk are considered before analyzing the identified risk.		
	Strongly Agree	0	0
	Agree	9	25%
	Uncertain	7	19.47%
	Disagree	17	47.22%
	Strongly Disagree	3	8.33%
13	There is a measurement system to analyze risks that occur in the project.		
	Strongly agree	1	2.78%
	Agree	6	16.67%
	Uncertain	15	41.67%
	Disagree	10	27.78%
	Strongly disagree	4	11.11%
14	Project documents are updated after assessment of the risks that might occur.		
	Strongly agree	3	8.33%
	Agree	6	16.67%
	Uncertain	18	50%
	Disagree	7	19.44%
	Strongly disagree	2	5.56%

Item 12 in the above table states that characteristics of the risk are considered before analyzing the identified risk. Only 25% of the respondents agree with the statement while 19.47 are uncertain. More than half of the respondents, 55.55%, disagree and strongly disagree to the raised point. This shows that characteristics of risks are not considered before analyzing the identified risk.

For item 13, the number of respondents who strongly agree and agree are 19.45% while 41.67% are uncertain. Those who agree and strongly agree to the item count 38.89%. This can suggest that a measurement system to analyze risks that occur in the project is not clearly set.

For item number 14 which states project documents are updated after assessment of the risks that might occur, 50% of the respondents chose uncertain while only 25% of the respondents strongly agree and agree to the statement. The remaining 25% replied disagree and strongly disagree. From this, one can suggest that the project implementing team does not have clear understanding whether project documents are updated after assessment of the risks that might occur.

4.8 Project Risk Response

In the questionnaire, there are two questions regarding project risk response. The result and discussion of these questions are presented here.

Table 6: Responses for project risk response

No	Statement	Frequency	Percentage
15	The project has a well developed strategy to respond to risk.		
	Strongly Agree	4	11.11%
	Agree	11	30.56%
	Uncertain	15	41.67%
	Disagree	3	8.33%
	Strongly Disagree	3	8.33%
16	Factors such as budget, schedule and resources are considered while responding to risk.		
	Strongly agree	6	16.67%
	Agree	18	50%
	Uncertain	8	22.22%
	Disagree	3	8.33%
	Strongly disagree	1	2.78%

In table 6 item 15 states the project has a well developed strategy to respond to risk. 11.11% of the respondents strongly agree while 30.56% agree. 41.6% of the respondents are uncertain about the issue while 16.66% disagree and strongly disagree with the statement. This can indicate that

there is no clear understanding by a project team whether the project has a well developed strategy to respond to risk or not.

For item 16, 66.67% of the respondents replied strongly agree and agree while the 22.22% replied uncertain and the remaining 11.11% replied disagree and strongly disagree. This can show that factors such as budget, schedule and resources are considered while responding to risk in the project.

4.9 Project Risk Monitoring and Control

The last part of a Likert scale question in the questionnaire deals with project risk monitoring and control. Five questions under this category are discussed in the following part.

Table 7: Responses for project risk monitoring and control

No	Statement	Frequency	Percentage
17	Based on the current result of the project, risks are monitored and controlled well.		
	Strongly agree	6	16.67%
	Agree	12	33.33%
	Uncertain	15	41.67%
	Disagree	3	8.33%
	Strongly Disagree	0	0
18	The risk management methods and techniques used in the project are effective.		
	Strongly agree	3	8.33%
	Agree	15	41.67%
	Uncertain	15	41.67%
	Disagree	0	0
	Strongly Disagree	3	8.33%
19	The process for risk management is monitored, controlled and reviewed to ensure that it complies with standards and procedures.		
	Strongly agree	12	33.33%
	Agree	12	33.33%
	Uncertain	6	16.67%

	Disagree	5	8.33%
	Strongly Disagree	1	2.78%
20	Available information or the history of the project is used to supplement risk control.		
	Strongly agree	6	16.67%
	Agree	15	41.67%
	Uncertain	12	33.33%
	Disagree	3	8.33%
	Strongly Disagree		
21	Risks that occur in the project are controlled in a way that goes with the goal and objectives of the project.		
	Strongly agree	9	25%
	Agree	18	50%
	Uncertain	9	25%
	Disagree		
	Strongly Disagree		

Item number 17 in table 7 states based on the current result of the project, risks are monitored and controlled well. Half of the respondents, 50%, strongly agree and agree with this statement. Only 8.33% of the respondents disagree while 41.67% of the respondents are uncertain. From this it is possible to conclude that risks are monitored and controlled well in the project.

For the statement which says, “The risk management methods and techniques used in the project are effective,” 8.33% of the respondents strongly agree while 41.67% of the respondents agree. The number of respondents who are uncertain about the statement are the same with the number of respondents who agree which is 41.67%. The number of respondents who strongly disagree to the raised issue is only 8.33% while no one disagrees with the statement. This can show that the risk management methods and techniques used in the project are somehow effective.

Majority of the respondents (66.66%) strongly agree and agree that the process for risk management is monitored, controlled and reviewed to ensure that it complies with standards and procedures. Only 11.11% of the respondents disagree and strongly disagree with the statement. The remaining 16.67% of the respondents are not certain about this issue. This can indicate that

that the process for risk management is monitored, controlled and reviewed to ensure that it complies with standards and procedures.

For item 20 in the above table 58.34% of the respondents strongly agree and agree that available information or the history of the project is used to supplement risk control while 33.33% of the respondents are uncertain. Only 8.33% of the respondents disagree with the statement. This can suggest that to supplement risk control available information or the history of the project is used.

The last statement in table 7 states that risks that occur in the project are controlled in a way that goes with the goal and objectives of the project. No one disagree or strongly disagree with this statement while 75% of the respondents strongly agree and agree. This implies that Risks that risks that occur in the project are controlled in a way that goes with the goal and objectives of the project.

4.10 Supplementary Questions

To supplement questions prepared in Likert-scale, five multiple choice questions are included in the questionnaire. This part deals with these questions.

Table 8: Responses for Supplementary Questions

No	Item and Responses	Frequency	Percentage
22	Risks that occur in the project are mostly handled by		
	a. the project manager (coordinator)	22	61.11
	b. the project donor	8	22.22
	c. a specialized risk management team	1	2.78
	d. all teams participating in the project	5	13.89
	e. others, specify		
23	Risk management is implemented at the		
	a. conceptual stage of the project	3	8.33
	b. planning stage of the project	2	5.56
	c. implementation stage of the project	31	86.11
	d. closure stage of the project	0	
24	The following method is primarily used to identify risks in the project:		

	a. Expert Judgment	4	11.11
	b. Checklists	4	11.11
	c. Document Review	6	16.67
	d. Information gathering	21	58.33
	e Assumption analysis	1	2.78
	f. None		
	g. Others, specify		
25	Sources of risk that the project usually encounters are:		
	a. Technical	9	25
	b. Financial	15	41.67
	c. Human	9	25
	d. political	3	8.33
	f. Others, specify		
26	Which of the following techniques are used to assess the probability of risk occurrence in the project?		
	a. Quantitative assessments/ Numerical analysis	15	41.67
	b. Subjective probability assessments based on expert judgment	3	8.33
	c. Ranking the importance of risks based on past experience	6	16.67
	d. Qualitative assessment based on historical data	12	33.33
	e. Others, specify		
27	The risk mitigation strategy that is usually used in the project:		
	a. control/reduction	23	63.89
	b. avoidance	9	25
	c. transfer	1	2.78
	d. acceptance	2	5.56
	e. others, specify	1	2.78

The questions in the table above are designed to supplement the Likert scale questions which were discussed earlier. Question 22 in the table asks who mostly handle risks that occur in the project. 61.11% of respondents replied the project manager, 22.22% said it is the project donor, 13.89% mentioned all teams participating in the project and 2.78% of the respondents indicated a specialized risk management team. The response shows that handling risks that occur in the project is mostly the responsibility of the project manager.

Question 23 is used to identify the stage at which risk management is implemented in the project. The majority of the respondents, 86.11%, mentioned implementation stage of the project while 8.33% selected conceptual stage of the project and 5.56 said planning stage of the project. This

can show that risk management is more implemented when it occurs in the implementation stage. This contradicts with the idea that risk management is not a onetime activity rather it is a process that should be implemented in all stages of project management.

For item 24 which asks the method which is primarily used to identify risks in the project, 58.33% of the respondents mentioned information gathering, 16.67% indicated document review, equal number of respondents (11.11%) selected checklists and expert judgment while 2.78% of the respondents chose assumption analysis.

Question 25 asks sources of risk that the project usually encounters. Finance is mentioned by 41.67% of the respondents while each technical and human selected by 25% of the respondents and political selected by 8.33% of the respondents. This can show that though financial is chosen by more respondents, the project encounters different sources of risks.

The techniques used to assess the probability of risk occurrence in the project are another question. For this one quantitative assessments/ numerical analysis is selected by 41.67% of the respondents, qualitative assessment based on historical data by 33.33%, ranking the importance of risks based on past experience by 16.67% and 8.33% of the respondents selected subjective probability assessments based on expert judgment.

The last question in the above table asks the risk mitigation strategy that is usually used in the project. Most of the respondents, 63.89%, mentioned that control/reduction is the main risk mitigation strategy used in the project. The remaining 36.11% of the respondents selected avoidance, transfer and acceptance strategies. This implies that risk control is the main mitigation strategy that is usually used in the Access project.

4.11 Discussion of Open-ended Questions

In the questionnaire, there are two open ended questions to get some detail information to supplement the objective questions. The first questions asks what three measures would the respondents consider important for improving project risk management practices in order to enhance the success of the project. For this question, one of the answers which is repeatedly raised by different respondents is giving emphasis to planning how to manage projects risks ahead of time instead of starting searching solutions when the risk happens. The respondents

suggest that effectively planning risk management can help to improve project risk management practices in the project. This idea goes with what the current theory of project risk management suggests.

Setting good communication strategy among the project stakeholders is another issue indicated by the respondents as important matter for improving project risk management practices in order to enhance the success of the project. Some indicated that they do not have current updates regarding what is going on in the project and that can affect how they can manage risks in the project and also can negatively affect the success of the project.

Giving training on how to manage risks to the stakeholders, flexibility in different phases of the project to manage risk, support from top management and prioritizing risks are among the issues raised for improving project risk management practices.

The respondents were also asked what recommendations they would make that will improve project management in the project. They responded that there should be clear document which details about responsibilities of different stakeholders considering the local context regarding project risk management. They also indicated the importance of getting frequent feedback from different stakeholders regarding risk management. Involving different stakeholders starting from the early stage of the project and at different phases of the project to manage project risks effectively is also another point raised by different respondents.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

This chapter deals with the conclusions drawn from the findings of the study. It also presents possible recommendations forwarded by the researcher based on the findings.

5.1 Conclusions

In this study, an attempt was made to assess project risk management practices of education projects in Ethiopian higher education focusing on a project called Access. More specifically the study tries to answer the following basic questions:

- What is the extent to which project risk management is practiced in the project?
- What are the project risk management methods and techniques used?
- What is the effectiveness of the risk management methods and techniques used in the project?

In order to achieve the purpose of this study, data was gathered from Access project managers and project implementing teams at Haramaya University, Dire Dawa University, Bahir Dar University, Debre Berhan University, Jimma University, Hawassa University and Ambo University by using questionnaire and interview. The researcher distributed the questionnaire to the respondents in person and by email. Both the quantitative and qualitative data that were gathered through these instruments were analyzed. Based on the findings obtained through these instruments, the following conclusions are drawn.

The results of the study indicated that the participants of the study believed the Access project has a policy or guideline that recommends how to manage unexpected uncertainties or risks in the project. This guideline is not a separate document rather it is part of the project's policy.

The study reveals that though the Access project has a policy or guideline that recommends how to manage unexpected uncertainties or risks, the risk management process in the guideline is not well defined. As a result, in some situations the project implementing team depends on their own experience and knowledge to manage risks.

The study found that project manager is the main responsible person to handle risk when it occurs. The role of other project implementing team in handling project risks is not that much significant.

The overall result of the study showed that risk management is not treated as a continuous process in the project. Rather it is given emphasis during the project implementation phase when risks occur. It was also identified that planning project risk management is not given due emphasis. Besides, it is found out that the inclusion of environmental factors as an input to plan for uncertainties or risks is not adequate.

The study revealed that stakeholders' involvement in responding to risk in the project is satisfactory though their involvement in planning project risk management is at its minimal level and their roles in identifying risks is not well defined. In addition, the project team members lack knowledge and experiences on how to manage risks.

It is found out from the study that a measurement system to analyze risks that occur in the project is not clearly set and characteristics of risks are not given attention in analyzing the identified risks.

The study also revealed that the project implementing team does not have clear understanding whether project documents are updated after assessment of the risks that might occur.

The study identified that different factors such as budget, schedule and resources are considered while responding to risk in the project and the risk management methods and techniques used in the project are somehow effective. Besides, risks that occur in the project are controlled in a way that goes with the goal and objectives of the project.

5.2 Recommendations

Based on what has been stated so far, in order to implement project risk management effectively in education projects in Ethiopian higher institutions to get the targeted benefits from the projects, the following recommendations are forwarded.

It is believed that the appropriate implementation of project risk management in education and other projects can facilitate the effectiveness of projects. In order to get benefits from effective project risk management, different stakeholders who involve in education projects in Ethiopian higher education need to get necessary awareness raising trainings on how to effectively implement project risk management.

Having well defined policy or guidelines for project risk management process is very essential in order to manage risks effectively whenever they happen. Therefore, different stakeholders who involve in education projects in Ethiopian higher institutions need to work together in preparing clear guidelines for project risk management.

The involvement of project implementing team in handling risks in projects is very important. As a result, project managers need to assign roles and responsibilities for project implementing team rather than doing everything by themselves.

In order to make the use of project risk management effective, it is highly suggested to treat project risk management as a continuous process. Thus, those who involve in education projects in higher education need to develop the culture of using project risk management as a continuous process rather than thinking of it only when risks occur during the project implementation stage. Besides, different stakeholders should give due emphasis for having a well planed project risk management by considering the local context.

Those who involve in education projects in Ethiopian higher education need to prepare a clear measurement system to analyze risks that occur in project effectively and also characteristics of risks should be given attention in analyzing the identified risk.

Stakeholders in education projects in Ethiopian higher education should have a communication strategy regarding project risk management in order to provide relevant information to those who involve in projects to make the implementation of project risk management effective.

Project documents need to be updated after assessment of the risks that might occur since the documents can be used as historical data for related future projects.

Further detailed studies need to be conducted on education projects in Ethiopian academic institutions at different level since the country is investing a huge amount of money in education and such studies can help in making education projects effective.

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Appendix A
Addis Ababa University
College of Business and Economics
School of Commerce
Masters of Art in Project Management

Dear participant,

The purpose of this questionnaire is to collect data for a study leading to an M.A in Project Management. The questionnaire focuses on investigating the practices of project risk management in Access project. Your frank and sincere responses are very important for the success of this study. Therefore, kindly spare a few minutes to fill out this questionnaire. Your responses to this questionnaire will be treated with utmost confidentiality. Do not write your name in any part of the questionnaire.

Thank you in advance

Part I. General Information

Direction: Circle a letter of your choice.

1. What is your level of education?
 - a. Diploma
 - b. First degree
 - c. Postgraduate degree
 - d. Others, please specify _____
2. What is your job role in Access project?
 - a. Project manager (coordinator)
 - b. Project implementation team
 - c. Other, specify _____
3. How long have you been involved in this project?

- a. Below 2 years
- b. Between 2 and 5 years
- c. Over 5 years

Part II:

General Direction: In a scale of 1 to 5, please indicate the extent to which you agree with each of the following statements in relation to how well the project risk management practices were applied to Access project. Mark with a tick against the most applicable response. Where; 1= strongly disagree and 5= strongly agree.

No.	Statement	5	4	3	2	1
1	Access project has a clear policy or guideline that recommends how to manage unexpected uncertainties or risks.					
2	The project has a defined or standard risk management process.					
3	Responsible person or department is assigned for Access project to handle risk when it occurs.					
4	Risk management is treated as a continuous process in the project.					
5	Careful planning is done to perform risk management in the project.					
6	Relevant stakeholders are involved in the planning and performing of risk management.					
7	An expert judgment or meetings are considered while planning for risks that might occur in the project.					
8	Environmental factors are included as an input to plan for uncertainties or risks.					
9	Team members in the project receive training or have enough knowledge about how to handle uncertainties or risks.					
10	Risk management plan is incorporated with the project plan.					
11	All team members in the project play a role in identifying risk.					
12	Characteristics of the risk are considered before analyzing the identified risk.					

13	There is a measurement system to analyze risks that occur in the project.					
14	Project documents are updated after assessment of the risks that might occur.					
15	The project has a well developed strategy to respond to risk.					
16	Factors such as budget, schedule and resources are considered while responding to risk.					
17	Based on the current result of the project, risks are monitored and controlled well.					
18	The risk management methods and techniques used in the project are effective					
19	The process for risk management is monitored, controlled and reviewed to ensure that it complies with standards and procedures.					
20	Available information or the history of the project is used to supplement risk control.					
21	Risks that occur in the project are controlled in a way that goes with the goal and objectives of the project.					

Part III

For the following questions, circle the letter of your choice that best describes how you perceive risk management is implemented in Access project . You can choose more than one answer

22. Risks that occur in the project are mostly handled by:

- a. the project manager (coordinator)
- b. the project donor
- c. a specialized risk management team
- d. all teams participating in the project
- e. others, specify _____

23. Risk management is implemented at the

- a. conceptual stage of the project

- b. planning stage of the project
- c. implementation stage of the project
- d. closure stage of the project

24. The following method is primarily used to identify risks in the project:

- a. Expert Judgment
- b. Checklists
- c. Document Review
- d. Information gathering
- e. Assumption analysis
- f. None
- g. Others, specify _____

25. Sources of risk that the project usually encounters are:

- a. Technical
- b. Financial
- c. Human
- d. political
- f. Others, specify _____

26. Which of the following techniques are used to assess the probability of risk occurrence in the project?

- a. Quantitative assessments/ Numerical analysis
- b. Subjective probability assessments based on expert judgment
- c. Ranking the importance of risks based on past experience
- d. Qualitative assessment based on historical data
- e. Others, specify _____

27. The risk mitigation strategy that is usually used in the project:

- a. control/reduction
- b. avoidance
- c. transfer

d. acceptance

e. others, specify _____

Part IV:

Answer the following questions briefly.

28. In your opinion, what three measures would you consider important for improving project risk management practices in order to enhance the success of Access project?

(a)

(b)

(c)

29. What recommendations would you make that will improve project management in Access project?

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Thank You.

Appendix B
Addis Ababa University
College of Business and Economics
School of Commerce
INTERVIEW GUIDE FOR THE PROJECT MANGER

Dear Interviewee,

First of all I would like to thank you for your willingness to respond to my questions. My name is Wondimalem Geneti and I am a Masters of Art student in Project Management at Addis Ababa University School of Commerce. As part of my MA thesis work, I am studying the project risk management practice of education projects in Ethiopian higher education focusing on Access project. This interview is made so as to have more in depth information on the matter under study.

Thus, I kindly request you to answer all the questions assuring you that all responses will be used only as an input for this study.

1. Can you please tell me about risk management system in the Access project? Is there a standard risk management process which is being followed in the project?
2. Are team members in the project aware of how to manage risks so that uncertainties do not affect the objectives or goal of the project?
3. When do you manage or deal with risks in this project?
4. Is planning done carefully on how to manage risk at your project? If yes, how do you plan and who is involved in planning process?
5. What are the methods used to identify risks?
6. In the project are risks analyzed to assess their probability of occurrence and level of impact? How?

7. While taking action or responding to risks in the Access project, what are the factors you keep in consideration? Are factors such as schedule, budget and objective of the project considered?
8. What is the effectiveness of the risk management methods and techniques used in the project?
9. What challenges until now has the project faced due to unmanaged risks?