

**Impact of Risk Management Components on the Performance of Projects:  
A Study on Projects Financed by UNHCR in Ethiopia**



**A Research Report Submitted to the School of Graduate Studies of  
Jimma University in Partial Fulfillment of the Requirements for the  
Award of Master of Arts Degree in Project Management and Finance  
(MPMF)**

**By: Habtamu Gebremedhin**

**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
SCHOOL OF GRADUATE STUDIES  
DEPARTMENT OF ACCOUNTING AND FINANCE**

**June 2020  
Addis Ababa  
Ethiopia**

**Impact of Risk Management Components on the Performance of Projects:**

# **A Study on Projects Financed by UNHCR in Ethiopia**



## **A Research Report Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of Master of Arts Degree in Project Management and Finance (MPMF)**

**By: Habtamu Gebremedhin**

Under the guidance of  
**Main Advisor: Abiy Getahun**  
**Co-advisor: Mr. Monanol Terfa**

**JIMMA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**SCHOOL OF GRADUATE STUDIES**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

**June 2020**  
**Addis Ababa**  
**Ethiopia**

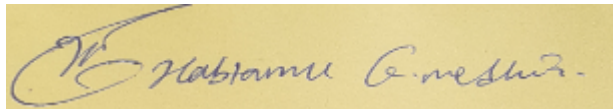
**DECLARATION**

I, the undersigned, declare that this study entitled “**Impact of Risk Management Components on the Performance of Projects: A Study on Projects Financed by UNHCR in Ethiopia**” 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 study have been duly acknowledged.

Declared by:

Name: Habtamu Gebremedhin

Signature:



*Habtamu Gebremedhin*

Date: June 2020

**CERTIFICATE**

This is to certify that this study, “**Impact of Risk Management Components on the Performance of Projects: A Study on Projects Financed by UNHCR in Ethiopia**”, undertaken by **Habtamu Gebremedhin** for the partial fulfillment of Master of Arts Degree in Project Management and Finance at Jimma University, is an original work and not submitted earlier for any degree either at this University or any other University.

---

**Research Advisor:**

---

Mr. Abiy Getahun

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

---

**Research Co-advisor:**

---

Mr. Monanol Terfa

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

---

<b>Table of Contents</b>	<b>Page</b>
<i>List of Tables</i> .....	<b>9</b>

<i>List of Figures</i> .....	10
<i>Acknowledgement</i> .....	10
<i>Acronyms</i> .....	11
<i>Abstract</i> .....	12
<b>CHAPTER ONE</b> .....	13
<b>INTRODUCTION</b> .....	13
<b>1.1 Background of the Study</b> .....	13
<b>1.2 Background of the Study Area</b> .....	15
<b>1.3 Statement of the Problem</b> .....	16
<b>1.4 Objectives of the Study</b> .....	18
<b>1.4.1 Main Objective</b> .....	18
<b>1.4.2 Specific Objectives</b> .....	19
<b>1.5 Research Hypotheses</b> .....	19
<b>1.6 Significance of the Study</b> .....	20
<b>1.7 Scope of the Study</b> .....	20
<b>1.8 Limitations of the Study</b> .....	20
<b>1.9 Organization of the paper</b> .....	21
<b>CHAPTER TWO</b> .....	21
<b>REVIEW OF RELATED LITERATURE</b> .....	21
<b>2.1 Introduction</b> .....	21
<b>2.2 Definition of Operational Terms</b> .....	21
<b>2.3 Theoretical Literature Review</b> .....	22
<b>2.3.1 The Concept of Risk</b> .....	22
<b>2.3.2 Project Risk Management Process: An Overview</b> .....	24
<b>2.3.3 Risk Management Planning</b> .....	25
<b>2.3.4 Risk Response</b> .....	26
<b>2.3.5 Risk Monitoring and Control</b> .....	28
<b>2.3.6 Assessment of Likelihood and Impact of Project Risk Factors</b> .....	28
<b>2.4 Conceptual Framework of Risk Management</b> .....	29
<b>2.5 Risk Management Process Adopted by UNHCR</b> .....	30
<b>2.6 Empirical Evidences</b> .....	31
<b>2.7 Conceptual Framework of the Research</b> .....	34

<b>CHAPTER THREE .....</b>	<b>35</b>
<b>RESERCH METHODOLOGY .....</b>	<b>35</b>
<b>3.1 Research Methodology .....</b>	<b>35</b>
<b>3.2 Source and Type of Data .....</b>	<b>35</b>
<b>3.3 Target Population .....</b>	<b>36</b>
<b>3.4 Method of Sampling.....</b>	<b>36</b>
<b>3.5 Determination of Sample Size.....</b>	<b>36</b>
<b>3.6 Methods of Data Analysis.....</b>	<b>37</b>
<b>3.7 Model Specification.....</b>	<b>38</b>
<b>3.8 Description of Variables .....</b>	<b>39</b>
<b>CHAPTER FOUR.....</b>	<b>40</b>
<b>DATA PRESENTATION AND INTERPRETATION.....</b>	<b>40</b>
<b>4.1 Introduction.....</b>	<b>40</b>
<b>4.2 Response Rate.....</b>	<b>40</b>
<b>4.2.1 Data Reliability Test.....</b>	<b>40</b>
<b>4.3 Demographic Variables .....</b>	<b>41</b>
<b>4.4 Result of Descriptive Statistics.....</b>	<b>44</b>
<b>4.4.1 Respondents' Perception on the Concept of Risk and Risk Management .....</b>	<b>44</b>
<b>4.4.2 Assessment on Risk Identification Practices.....</b>	<b>46</b>
<b>4.4.3 Assessment on Risk Analysis Practices .....</b>	<b>50</b>
<b>4.4.4 Assessment on Risk Planning Practices.....</b>	<b>51</b>
<b>4.4.5 Assessment on Risk Mitigation Practices.....</b>	<b>55</b>
<b>4.4.6 Assessment on Risk Monitoring and Control Practices.....</b>	<b>58</b>
<b>4.5 Result of Inferential Analysis.....</b>	<b>62</b>
<b>4.5.1 Test of Assumptions .....</b>	<b>62</b>
<b>4.6 Discussion.....</b>	<b>70</b>
<b>CHAPTER FIVE .....</b>	<b>72</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>72</b>
<b>5.1 Summary of Major Findings .....</b>	<b>72</b>
<b>5.2 Conclusions .....</b>	<b>74</b>
<b>5.3 Recommendations .....</b>	<b>74</b>

<b>References .....</b>	<b>76</b>
<b>Annex I: Data Collection Tools .....</b>	<b>79</b>
<b>Annex II: Pearson Correlation Matrix: Risk Management and Project Performance .....</b>	<b>89</b>

<b>List of Tables</b>	<b>Page</b>
Table 1. SPSS output for the reliability of the research questions.....	41

Table 2. Reliability of dependent and independent research variables.....	42
Table 3. Respondents' Sex.....	42
Table 4. Respondents' level of education.....	42
Table 5. Respondents Experience on Current Organization.....	43
Table 6. Respondents' role in current organization.....	43
Table 7. Respondents' work experience in current organization.....	43
Table 8. Project time of the PPAs.....	44
Table 9. Respondents' perception on the concept of risk.....	45
Table 10. Descriptive Statistics on respondents' perception on the concept of risk.....	45
Table 11. Descriptive Statistics on respondents' perception on the concept of risk.....	46
Table 12. Risk Identification.....	47
Table 13. The use of Qualitative Risk Assessment.....	48
Table 14. Descriptive Statistics on qualitative risk analysis.....	48
Table 15. Correlations Analysis of Risk Identification using Qualitative Risk Assessment.....	49
Table 16. Use of Quantitative Risk Analysis Method.....	50
Table 17. Descriptive Statistics on quantitative risk analysis.....	51
Table 18. Use of Risk Register System.....	52
Table 19. Use of Risk Register System on Risk Management Components.....	53
Table 20. Descriptive Statistics on the use of risk register.....	54
Table 21. Correlations on use of Risk Register on Risk Management Components.....	54
Table 22. Risk mitigation measures taken by the respondents.....	56
Table 23. Descriptive Statistics on Risk Mitigation Measures.....	57
Table 24. Practice of Risk Mitigation techniques.....	58
Table 25. Practice on Risk Monitoring and Control.....	59
Table 26. Descriptive Statistics on risk kmonitornting and control.....	59
Table 27. Impact of Risk Management on the Performance of Projects.....	60
Table 28. Descriptive Statistics on impact of risk management on the performance of project ..	61
Table 29. Correlation analysis on impact of risk management on project performance.....	61
Table 30. Regression Analysis on impact of Risk Assessment on the performance of projects ..	66
Table 31. Regression Analysis on impact of Risk Analysis on the performance of projects.....	67
Table 32. Regression Analysis on impact of Risk Planning on the performance of projects.....	68



Table 33. Regression Analysis on impact of Risk Mitigation on the performance of projects .... 69  
Table 34. Regression Analysis on impact of Risk Monitoring on the performance of projects... 70

<b>List of Figures</b>	<b>Page</b>
Figure 1. Number of Projects with Adverse Financial Audit Opinion .....	14

Figure 2. Project Risk Management Overview.....	25
Figure 3. Risk Analysis and Management Model.....	31
Figure 4: The Risk Management Process adopted by UNHCR.....	32
Figure 5. Conceptual Framework of the Reseach.....	35
Figure 6. The Research Variables.....	40

### **ACKNOWLEDGEMENT**

I would like to express my sincer appreciation to my thesis advisor, Mr. Abiy Getahun, and my Co- Advisor, Mr. Monanol Terfa, for review and providng me valuable feedback. Besides, I am also very thankful to Mr. Barnaby Jones, Senior Risk Mnagement and Compliance Advisor of

UNHCR Representative office in Ethiopia, for his review of the data collection instruments and the comments have shaped the research approach.

Finally, but not the least, my gratitude goes to my beloved wife, Ekram Mohammednur, for her unreserved care has enabled me to perform this research consistently.

## **ACRONYMS**

IP	Implementing Partner
KII	Key Informant Interview
NGO	Non-Governmentla Organization
PCM	Project Cycle Management

PPA	Project Partnership Agreement
RBS	Risk Breakdown Structure
SPSS	Statistical Packages for Social Sciences
UNHCR	United Nations High Commissioner for Refugees

### ***ABSTRACT***

*Through the past decades researches and academics have focused on assessing the impact of risk management components but for mega and complex public projects. In this regard, there is a limitation to witness the impact of risk management components on the performance of projects managed by not-for-profit, non-governmental organizations. It is true for the case of projects run by NGOs in Ethiopia as a common fact evidenced through an extensive the review of an empirical sources. Therefore, it aimed to assess the impact of risk management components on the performance of projects financed by UNHCR in Ethiopia. The research. adopted both an explorative research design. It employed a mixed approach to both quantitative*

*and qualitative data collection and analysis methods. The target population of the research were employees of the implementing partners identified as focal persons for the project partnership management with UNHCR in Ethiopia; numbered 112. A simple random sampling design was used to determine the sample size of the research by which 88 respondents were randomly selected using lottery method. The research found out that there is a variation between respondents' perception and the conventional definition on the concept of risk. Besides, the use of risk register for risk planning purpose was found low. Most of the respondents practiced budget variance analysis as a risk mitigation technique. However, there is a significantly low use of other risk management tools and techniques by the respondents. Moreover, the negative beta coefficients observed for the risk management components which indicated the need to enhance the risk management practice of the respondents to enhance the performance of projects. Therefore, there is a need to develop a mechanism to support for risk closure when projects are completed.*

*Key Words: Impact, Project Performance, Risk, Risk Management, UNHCR.*

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Risk management is a well-known concept in the business world as organizations are constrained to resources, time and quality performance standards (Tian, 2013). Therefore, organizations in order to effective and efficient on performance, the risk management process needs to be well integrated into the project cycle management. The concept of risk and risk management has been studied on high capital and complex projects. In recent times, the concept of risk management is well studied under telecommunications, manufacturing high technology products, information technology and construction engineering projects (Ibbs and Kwak, 2001, Kinyua., 2015, and Drennan, 2014).

Risk management is one of the elements of project management knowledge area (PMI, 2013). Hence, the project cycle management that the project design should have a risk response plan to deal with an anticipated risk during the course of project implementation. However, lack of project risk assessment would result in the formulation of wrong assumptions in the risk management process. Therefore, poor decisions will be made at the project planning stage, complicates the risk response efforts at the latter stages and negatively impacts the project performance at the end (Simon, 1997).

The effectiveness of risk management process is measured against its impact on project performance. But there is lack of common understanding on the nature, probability and impact of the risk management because organizations have limitations on employing a holistic approach to project risk management policy and procedures (Bakkar et al, 2012). For instance, structuring the project risk using a risk breakdown structure (RBS) is one of the difficult tasks to perform project risk analysis (Alviunessen and Jankensgard, 2009, Bakkar et al., 2012 and Low et al. 2009). Therefore, it will be challenging to get a comprehensive view of the risk management process. Therefore, (Low et al. 2009) argued that organizations are unable to assess the project risks due to lack of a detailed risk information analyzed using a standard risk breakdown structure (RBS) format.

Besides, organizations will not be able to analyze large amount of risk data produced during the risk identification and analysis process (Low et al. 2009). Furthermore, there is little evidence available on the use of RBS as a format to analyze data on project risk (Bakkar et al., 2012). In addition, because of lack of using a RBS model, the basic risks, which occur frequently, are not identified and recorded for future use.

Usually projects fail to set an effective risk response plans because of lack of use of a Risk breakdown structure analysis to identify project risks. Moreover, Dooley (2005) argue that projects fail to mitigate an unforeseen risk using risk management tools and procedures. Therefore, there is a need to implement an effective risk assessment, systematically analyze them and use appropriate tools and systems to enhance project performance (Dooley, 2005). However, (Fraser & Henry 2007) explained that failure to appreciate risk issues may give rise to

serious consequences on project performance as well as may affect the reputation of the organization.

Besides, the probability of project failure is high if risk is not carefully identified, properly analyzed and applicable risk response strategies are set up at the project formulation stage (PMI, 2009). But, (Edkins, 2013) explained that the risk management practices start at the operational phase of the project. Although the risk management discipline has continued to gain focus on mega and complex capital investment projects, there is little attention given to public and not-for-profit organization (Drennam., 2014 & Kwak, 2001).

## **1.2 Background of the Study Area**

UNHCR is an organization which has a policy on fixed project contract management in partnership with implementing agencies (OIOS, 2011). The projects financed by UNHCR are all time bounded and the project schedule covers a fixed period between 01 January to 31 December of each budget year. Amending the project schedule is a rare practice globally and if so, requires an agreement amendment approval process. This is an inherent risk with a downward effect on project performance on time from the contract management perspective.

The Project partnership agreement has in it an inherent risk because it refers to a fixed project time. Performing the project results on the given timetable is a challenging exercise during the project implementation. If the risks associated with project schedule is not managed effectively there could occur project delay. In order to ensure the timely implementation of the project partnership agreement, UNHCR employs a mid-term financial verification, procurement policy and practice status review, and a project performance evaluation tool. Besides, the project progress reports used as a tool to monitor performance (UNHCR, 1996). UNHCR has adopted risk management policy as an integral part of the project risk management in 2014. The use of risk management as an integral part of project management is adopted by UNHCR.

According to UNHCR (2019), a total of 334 consolidated project partnership agreements (PPAs) were implemented in Ethiopia in collaboration with a total of 56 implementing partner (IP) organizations between the year 2014 and 2018. The implementing partners of UNHCR in Ethiopia include international non-governmental organizations (INGOs), local NGOs,

community-based development organization, public and government organizations. The implementing partners have delegations to receive funds from UNHCR and implement projects on behalf of UNHCR (UNHCR, 1996).

**PPA Audit Statistics (2014-2018)**

<b>Year</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>No. of PPAs</b>	74	85	81	47	47
<b>Value of PPA (Mil \$)</b>	96.04	98.53	72.59	78.96	74.12
<b>PPAs Selected for Audit</b>	61	79	60	33	27
<b>% of # of PPAs</b>	82%	93%	74%	70%	57%
<b>Value of PPA Selected for Audit (Mil \$)</b>	83.26	94.33	66.73	73.08	70.16
<b>% of total Value of PPAs Selected for Audit</b>	87%	96%	92%	93%	95%
<b>Qualified Audit Opinion</b>	33	30*	8	0	0
<b>% of total # of PPAs Selected for Audit with Qualified Audit Opinion</b>	54%	38%	13%	0%	0%

\* 1 PPA with Adverse Audit Opinion

Figure 1. Number of Projects with adverse Financial Audit Opinion (UNHCR, 2019).

UNHCR has adopted risk management as an integral part of the project risk management in 2014. Since, reports had indicated that operational risks on project implementation was the highest out of the overall organizational risks of UNHCR globally. In this regard, addressing the operational risks at project implementation is becoming the top priority to mitigate by UNHCR (UNHCR, 2019).

### **1.3 Statement of the Problem**

Most of the previous studies made on assessing project risk management have focused on large capital investment projects in general and specific to thematic aspects on the concept of risk. For instance, (Edward and Brown, 1998,) focused on the classification of the project risk types. Other authors like (Tchankova, 2002) specifically investigated the project risk at the implementation stage of the project cycle management. Hillson (2004) made an assessment on how risk is perceived (Hillson 2004), while (Wang et al., 2004; and Akintoye et al., 2001) have studied the framework for risk assessment on project performance, and (Dada and Jagboro, 2007;



Aje et al., 2009; and Enshassi et al., 2009) have investigated the practical barriers and benefits of risk management.

Besides, Hulett (2011) have conducted a study on how the concept of risk is perceived by the project managers. The research result indicated that there is a variation among project practitioners on understanding project risks and to predict future opportunities differently (Hulett, 2011). Because, there is a variation on the perception of risk by project practitioners, when risks should be identified and when analyzed (Hillson, 2014). Besides, perception is regarded as a factor on risk attitude; *“risk attitude is a chosen mental disposition towards uncertainty, adopted explicitly or implicitly by individuals and groups, driven by perception, and evidenced by observable behavior. Risk attitude exists on a continuous spectrum, but common risk attitudes include risk averse, risk tolerant, risk neutral and risk seeking”* (PMI,2009:111).

Measuring project success vary from organization to organization (Jeffrey, 1987). The definition of project success is ambiguous (PMI, 2013). The traditional view of project performance to cost, time and quality is not enough to indicate project success (Ukaga, 2008, APM, 2007, Turner, 2002, Turner and Simister 2001). Similarly, Cagliano (2015) argue that customer’s satisfaction as a direct measure of project performance. In addition, (Wang, 2006) had identified that stakeholders’ satisfaction as a function of project performance and project success. Because, project success is the satisfaction of stakeholders needs and measured by the success criteria as identified at the start of the project planning stage (Cagliano, 2015). The project performance on quality is frequently overlooked as an impact category by the external, financial audits. Because, a reduction in quality is the preferred choice for the mitigation of a risk. If a reduction in quality is not well documented in the risk mitigation plans and approved by the project sponsor, then it can result in significant impact on stakeholders’ satisfaction. Besides, quality is a function of project achievement to donor requirements, stakeholders’ satisfaction, meeting the desired goal of the project while performing the project operations with on cost and on time (Cagliano, 2015).

The overall project success deals with the wider and longer-term impact of the project management success and project product success (PMI, 2013). Besides, projects’ contribution to the overall organizational strategic goal and missions is also a measure of project quality performance (PMI, 2013).

A significant number of studies conducted in Ethiopia have focused on project management performance for public infrastructure sectors including Telecommunication and Federal Road Authority (Getachew Aberra, 2015 and Yesuf Ahmed, 2015). Therefore, there is a knowledge gap on assessing the factors that affect project performance of non-governmental organizations (NGOs) in Ethiopia (Abraham, 2013). Besides, there is an absence of empirical evidence on assessing the impact of risk management on project performance in the NGOs sector in Ethiopia.

On the other hand, the UNHCR representative office in Ethiopia had experienced a significant number of projects failure to meet its compliance requirements (UNHCR, 2017). Out of the total 334 projects implemented between the year 2014 and 2018. During this period, 260 projects (77.8%) were audited by external auditors and out of them 71 projects (27.3%) had failed to meet project performance parameters (UNHCR, 2019). The risk assessment report of UNHCR 2017 and 2018 revealed the risk issues remained open audit findings (UNHCR, 2019).

Therefore, it is the presence of a significant number of project failure, and also the presence of mixed performance of project failure and project success which have been observed over time, that motivated this research to further assess if the risk management components employed have an impact on the performance of projects.

Based on the conceptual framework and definition of operational terms the following are the basic questions of the research;

1. How is the concept of risk and risk management perceived by the project implementing partners of UNHCR in Ethiopia?
2. Is there a significant relationship between the risk management components and the performance of projects financed by UNHCR in Ethiopia?
3. What is the impact of the risk management components on the performance of projects under the research?

## **1.4 Objectives of the Study**

### **1.4.1 Main Objective**

The main objective of the research is to assess the impact of risk management components on the performance of projects financed by UNHCR in Ethiopia.

### 1.4.2 Specific Objectives

The specific objectives of the research are;

1. To explore the existing perception on the concept of risk and risk management.
2. To examine if there is a significant relationship between risk management Components and project performance variables.

## 1.5 Research Hypotheses

The following are the research hypotheses formulated by the researcher;

**Hypothesis 1:** There is no significant relationship between the risk management components and project performance.

**Hypothesis 2:** There is no significant impact of risk management components on project performance.

## 1.6 Significance of the Study

This research will add value to the existing employees' perception on the impact of risk management components on the performance of projects financed by UNHCR in Ethiopia. By sharing the main findings of this research, the project managers of the implementing partners on UNHCR in Ethiopia could further examine on any possible project risk factors that affect the performance of projects. More specifically, the funding agency, UNHCR representative office in Ethiopia may consider the main findings of this research to identify the capacity needs and gaps on project risk management among its implementing partner organizations in the country. In this way, the specific recommendations of this research could serve as an initial agenda for enhancing the performance of projects and ensure accountability for effective and efficient service delivery to UNHCR's persons of concern in the operation area. Therefore, this piece of research work will contribute to enhance the risk awareness by all the project stakeholders in the research area. Besides, the findings of research will serve as a reference to conduct further studies to fill the knowledge gap identified in similar sector in Ethiopia.

## **1.7 Scope of the Study**

Methodologically, this research was a cross-sectional study made to assess the research problem at a point in time during the research period. Since, the main objective of the research was to assess the impact of risk management on project performance, the research did not consider the role of moderating variables; project type, project size, and project complexity factors on impacting project performance.

Most of the previous researches have focused on assessing risk management at the operational phase of projects and missed the risk identification and risk assessment components (Edkins et al., 2013). But the scope of this research covers the risk management components at the whole project cycle starting from risk identification to risk closure in all levels of the project cycle management. The research targeted only projects completed during the period between 2014 to 2018. The projects which were ongoing during the research period were not included.

Sample units of the research were randomly selected out of the UNHCR contact list of focal persons who were responsible for the management of UNHCR PPAs located at the head offices of the implementing offices in Addis Ababa. Due to limitation of time and budget the research did not include the view and opinions of mid-level project managers at the field level.

## **1.8 Limitations of the Study**

Methodologically, this research used a simple random sampling technique to capture the views and practices of samples identified at the head office level only. Therefore, the views and opinions of the project managers located at the field level was not included. Sample elements of the research were project managers of implementing partners (IPs). Therefore, the research is limited to incorporate an opinion on the satisfaction of other project stakeholders.

This research did not consider the effect of the mediating variables of project type, project size, project complexity and organizational maturity because the projects under the research were heterogeneous in type, scope, size, location and the level of risk exposure. Besides, this research did not test the influence of the moderating variables on the performance of projects because its objective was not to assess the risk factors.

## **1.9 Organization of the paper**

The paper has five chapters. Chapter one covers an introduction of the research problem; chapter two presents the review of literature, both the theoretical frameworks and empirical findings of similar studies. Chapter three describes the method and methodologies of the research. Chapter four presents the data and discusses on the findings. Finally, chapter five summarizes the main findings and conclusion of the research and recommendations for future researches.

# **CHAPTER TWO**

## **REVIEW OF RELATED LITERATURE**

### **2.1 Introduction**

This chapter aimed to identify the conceptual framework on project risk management components and the different steps used as well as to collect the practices recommended by the literature review and classify them based on the steps of project risk management process. Besides, the review of empirical sources, aimed to examine if there is an association between the risk management components and its impact on project performance.

### **2.2 Definition of Operational Terms**

**Risk**= project risks divided by two broad categories; operational risks at project outcome (result) level and organizational risks including risks to staff, assets, and reputation.

**Risk management process**= it is the systematic application of management policies, policies, procedures and practices to the activities of communicating, consulting, establishing the context and identifying, evaluating, treating, monitoring and reviewing risk as well as its analysis and

monitoring. The risk management components include risk assessment, risk analysis, risk planning, risk monitoring and control.

**Control**= is a measure on processes, policies, practices or another action taken to modify risk, to reduce the likelihood of occurrence and potential impact of a risk. It is a rare phenomenon that a given risk can be completely controlled and removed. But its occurrences and impact can be reduced to an acceptable level.

**Impact**= is the outcome of an event that affects project objectives, staff, assets, or reputation. A schedule slip cause risk on project performance on other performance parameters. According to (Edkins et al., 2013) estimating the schedule impact of a risk event is the basis for evaluating the other impact categories. Besides, indicated that Schedule delays frequently result in cost increases and may result in a reduction of scope or compromising quality (Edkins et al., 2013).

**Project Performance** = Project performance criteria is the starting up stage by which the overall project objective is set. Traditionally project performance is measured against accomplishment as per the given cost, time and quality. However, project performance is a function of stakeholders' satisfaction, project outcome and impact at the objective and goal level, in terms of cost, time and quality. Project performance can be directly influenced by the level of ownership and understanding of the identified risks by the project stakeholders and project team. Failure to conducting risk assessment or risk identification leads to overlooking, setting wrong assumptions, overestimate or underestimate, unrealistic decision-making and wrong environment scanning ability on the overall risks of the project (Edward, 2005). Performance indicators in projects are; scope, quality objectives, customer satisfaction and team capacity.

## **2.3 Theoretical Literature Review**

### **2.3.1 The Concept of Risk**

Different authors have provided the definition on the concept of risk. For instance, Risk is an *“uncertain future event that would have a negative effect on achievement of project time and cost objectives”* (Hilson, 2014:2). According to PMI (2013), the concept of risk includes not

only threats to the project schedule or budget and other project risk standards agreed. Risk is an uncertainty that effects both positively as an opportunity and negatively as a threat to project time, cost and objectives. On the other hand, Hillson, (2014) elaborated that sources of uncertainty are classified as future uncertain events, variability risks, ambiguity and emergence.

As explained by (Hillson, 2003) risk is uncertainty that matters. This concept is adopted by many standards including (ISO, 2009). Besides, different sources have adopted this definition as a starting for developing a more detailed risk definition (PMI, 2013, APM, 2012 & MOR, 2010). Uncertainty is a certain event or condition, on certain event or set of circumstances, uncertain event or set of events, effect of uncertainty, a possible occurrence.

Accordingly, Hillson, (2014) explained that risk is an uncertainty that matters. Matter, if it occurs, refers to a positive or negative effect on a project's objectives, would influence achievement of one or more project objectives, will influence the achievement of objectives, could affect positively or negatively the achievement of the objectives for the investment.

Risk exists in different forms through originating from uncertainties (Perminova et al., 2008). Therefore, the impact is the effect on the project objectives if the risk event should occur. In addition, Wissom (2013) defined risk as possible event whose unfavorable consequences are difficult to accept or are even unacceptable. Risk is an inherent phenomenon.

Consequently, risk is absolutely linked with uncertainty. On the other hand, projects are becoming more complex that the probability of exposure to risk also increases. Project complexity is the most important factor which significantly increases the likelihood of facing risk during the project. Therefore, it is widely perceived that use of risk management system increases the probability of the project's success (Acharyya, 2008).

The risk management strategy can improve the likelihood of the project's success, but it is also important to maintain measurements of the risk management system's performance on a regular basis. Organizations take various initiatives to identify the risk and different corrective measures to manage risks. But often, companies fail to invest time and resources to monitor the risk management strategy's effectiveness during the progress of a project (Dooly,2005).

However, lack of proper evaluation of the risk management, it is difficult for a given organization to track the progress of the risk mitigation, which in turn negatively affects project performance. Thus, it is crucial to identify the risks, a proper way to manage them and effectively measure management performance properly during a project. As a result, both the risk management and project success are linked together. Therefore, risks are associated to uncertainty events that can affect project objectives negatively or positively.

For every and each risk perception different administrative strategies are required. These perspectives indicate the evolution of thinking about risk management in a certain way derived from the interest or risk attitude (risk appetite) in project management in general sense (PMI, 2009). According to Edward (2005) the traditional forms of dealing with project risk management focuses on a variability of events, forms of uncertainty and ambiguities in projects. The traditional view of variability associated with uncertain values such as deadline, cost and quality. The ambiguity situation is associated with lack of clarity of the data, the details and structures.

### **2.3.2 Project Risk Management Process: An Overview**

The project risk management is a process by which the project decision-agents plan and take actions to control the project performance. The project performance is measured in terms of the project outcome as per the defined time, cost, and quality standards. Projects are constrained to cost, time, quality and other performance indicators (Tinnirello, P. C. 2000).

Risk management is the culture, processes and structures that are directed towards effective management of potential opportunities and threats to the organization achieving its objectives. Risk Management is a proactive identification, assessment and action to potential factors that might affect the project success (Kishk et al , 2008). Risks must be considered in the decision-making process. The formulation of risk management response to the main risk, may start at the qualitative risk analysis if the need to respond to the risk arise as urgent and when the solution is perceived.





Figure 2. Project Risk Management Overview (PMI, 2013).

### 2.3.3 Risk Management Planning

The main goal of risk management is to manage risk to ensure a successful project outcome. The risk management plan enables managers to clearly identify risks, develop and document risk mitigation strategies and contingency plans. The risk management plan also includes identifying both the project costs and actions necessary for implementing the risk management plan. Once completed the risk management plan helps as a tool to communicate with key stakeholders. Risk management involves; identifying preventive measures to avoid a risk or to reduce its effect, establishing contingency plans to deal with risks if they should occur, initiating further investigations to reduce uncertainty through better information, considering risk transfer, considering risk allocation in contracts and setting contingencies in cost estimates, float in Programs and tolerances or ‘space’ in performance specifications (Dooly, 2005).

Risk management begins with a qualitative analysis aimed to build an understanding of the project and project related risks, and to identify possible ways or methods for risk ‘closure’ or a

risk response i.e. development of a specific risk response plan to specifically identified risk issue.

If there is both quantitative and qualitative analysis of risk factors such as time or resource pressure or cost constraints made, at least the qualitative analysis should remain as an initial step. If risk analysis method or process is integrated into the project management then there should be a procedure that needs to be established in the decision-making processes. A good example is sanctions decision on clients, where estimates of cost and time will be produced in the form of ranges and associated probabilities rather than single value figures or ratio.

#### **2.3.4 Risk Response**

Qualitative risk analysis refers to the process of identifying and assessing risks, leads to initial quantitative risk analysis, and project risk management. Risk can affect other project objectives including; Technical performance, Human health and safety, Regulatory compliance, Corporate reputation according to the risk policy. Therefore, any project risk register should include other project objectives other than time and cost. Uncertainties that could affect the project objectives, other than time and cost, needs to be identified, prioritized and managed as well as those that relate to project budget or schedule. On the other hand, Larman (2004) explained that for every risk impact category the impact assessment should include consideration of the following areas of impact;

The large amount of risk data produced during the risk process must be structured to aid its comprehension and interpretation, and to allow it to be used as a basis for action. One of the is difficult tasks in the post-project review is to structure the information so that it can be referenced and used by future projects.

Having a common language, perception and terminology facilitates on detailed and cross-referencing project reporting and capturing lessons learnt. The Risk Breakdown Structure is relevant tool in assisting the project staff to understand and manage the project risks.

The objective of risk management is to identify potential problems before they occur and to plan and carry out risk-handling activities in order to mitigate potential risks (Doyel, 2007)). Risk management is a continuous, forward-looking process that must be an integral part of day-to-day

business activities and processes. Risk management should address issues that could endanger achievement of critical objectives (Cagliano, 2015). A continuous risk management approach is needed to be applied to effectively anticipate and mitigate the risks that have critical impact on the project. Projects are unique by their very nature and complex. It is not possible to formulate and implement projects without the possibility of uncertain events which either positively or negatively impact performance. therefore, risk is inherent, and there is no risk free project environment. Traditionally project success is measured in terms of an ability to accomplish projects on time, within the cost and performance goals, quality and stakeholders' expectations (Shenhar, Dvir, Levy, and Maltz, 2001). Similar view is provided by (PMI, 2004) that any project success is measured in terms of time, cost, quality and customer satisfaction. Besides, Hilson (2009) delivering the project on schedule, on budget and as per the quality standard is what project success entails. Such project success allows the project's output to meet the promised benefits to stakeholder. Project risk is defined as 'an uncertain' event or condition, if it occurs, which has a positive or negative impact on the project's objective (PMI, 2009).

According to Heldman (2005) the common types of project risks include technical risks, project management risks, organizational risks, financial risks, external risks, and compliance risks. On the other hand, (Farrell, 2005) argued that failure to identify and inability to properly and timely manage any project uncertainties lead towards the emergence of risks on project success. Besides, (McFarlan,1981) indicated that project failure is caused due to lack of attention to individual project risks, aggregate risk of portfolio of projects and the recognition that different types of projects require different types of project management. If project risk factors are not closely measured, assessed and controlled, then there is a high possibility of occurrence of project cost overrun and time overrun (Ewusi-Mensah, 1997). as well as consider the risk management process in more detail, arguing that risk management activities have a positive impact on timely project delivery.

Davies, C. (2000) stated that risk management planning has a positive impact on completing the project on time. Besides, it is widely acknowledged that project risk management can help to successfully accomplish the project as per the stakeholders' expectations. Each of the project risk management techniques including the risk response plans helps to assess its contribution in

meeting the planned project duration. Due to the apparent influence of risks projects performance in terms of time, budget and quality objectives are impacted (Chapman, 2001).

Most of the literatures, as indicated by (Abdali et al, 2013 and Bakkar, et al., 2014) the use of a holistic approach to risk management is recommended than depending on the traditional approaches to risk management. In addition, Serpella, et al (2014) argue that projects face low performance due to lack of effective risk management practices at every stages of the project lifecycle.

### **2.3.5 Risk Monitoring and Control**

The risk monitoring can be done as part of the team project management activities or through monitor the list of top risks identified using the risk register system if there is any new risk occurred. According to (Larman, 2004) after risk are identified, analyzed, prioritized and actions are established, it is essential that the project team regularly monitor the progress of the project and the resolution of the risk items, by taking corrective action when necessary.

Risk consideration is the heart of the project management decision-making process (Hodge, 2002). Similarly, (Fraser & Henry, 2007) argue that failure to appreciate risks may give rise to serious consequences on project performance. Traditionally it is recognized that project performance is measured against the allocated time, cost, and quality standards and project failure is also a reflection of failure on traditional performance parameters (Atkinson, 1999).

### **2.3.6 Assessment of Likelihood and Impact of Project Risk Factors**

Risk assessment is a process composed of an information and communication system to monitor and control of project activities. As per the explanation provided by (Hillson, 2007)it is apparent to consider all types of potential impact from risk. According to (Bakkar et al, 2012) risk impact breakdown structure (RIBS) as an impact –oriented grouping of project risks that organizes and defines the total risk exposure of the project. Each describing level represents an increasingly detailed definition of risk impacts on the project”. Level one impact types are cost, scope or quality, and other objectives. RIBS is the sum of the “*triple constraints*” of time, cost

and scope or quality which is the three common project risks. Depending on the specific objectives of the project including, reputation, regulatory compliance, business benefits. Safety, as well as depending on the level of detailed analysis required to support effective management of risk.

Risk assessment is an important research theme for the risks were always present in the project activities. Organizational maturity refers to a situation by which an organization which is completely aware of risk, and proactively takes actions based on risk information. The risk information is much related with the knowledge and skills of the project personnel (Luiz Henrique Rodrigues - da Silva, Jose Antonio Crispim, 2014).

## **2.4 Conceptual Framework of Risk Management**

Risk is defined as “uncertainty that matters” and perceived risk as “uncertainty” refers to “future events that may or may not occur”, and “matter” means an event “would have a negative effect on project budget or schedule” (Hilson, 2014). Conceptually, uncertainty is the center of project risk management concerns. In this regard, (Hilson, 2003) argue that the enterprise risk management should focus on administering uncertainties.

Risk is always associated with uncertain events to the project. According to Baker et al (2010) uncertainty refers to “something unknown” while risk is indicating “something that can occur”. Besides, most of the project risks occur out of uncertain events or out of uncertainty, but other factors that contribute to the project risk Such factors include time frame and deadlines, costs, scarcity of resources, inadequate abilities, and competencies, when is occurs. The relationship between risk and uncertainty is adopted by the (PMI, 2009) while defining the concept of risk as an uncertain event or condition that, if it occurs, has a positive or negative effect on at least one of the project objectives (PMI, 2009). On the other hand, Hillson (2007) explained that uncertainty is a situation where decisions are made under conditions of unknown probabilities. However, it is basically impracticable to associate numerical probability values to an uncertain event, because of lack of knowledge about the consequences (impact) on performance of an event.

There are four types uncertainty (De Meyer et al. ,2008). These are the factors that impact the project objectives in a predictable way. The four types of uncertainty mentioned by (De Meyer

et al. ,2008) are; Variability on cost and time, which is the known random variation on project objectives, but which is predictable and controllable. Foreseeable, on the other hand, refers to the known objectives which can be mitigated thorough establishing or formulating a contingency plan be established to deal with the consequences of an eventual occurrence. Uncertainty is a situation where one of more significant factors that impact the project which cannot be predictable, and which demands a risk response plan when it only occurs.

According to Hillson (2007) risk management is a series of interconnected processes involving specific techniques”. There are six risk management processes proposed by (PMI, 2009). These are; Risk planning, Risk identification, Qualitative risk analysis, Quantitative risk analysis, Risk Response Planning, and Risk Monitoring and Control. Project risk management is the systematic process of identifying, analysis, and responding to project risk. the steps in project risk management; recognizing the risk, investigate the risk, seek to deal with the risk, and keep track of the risk (PMI,2009).

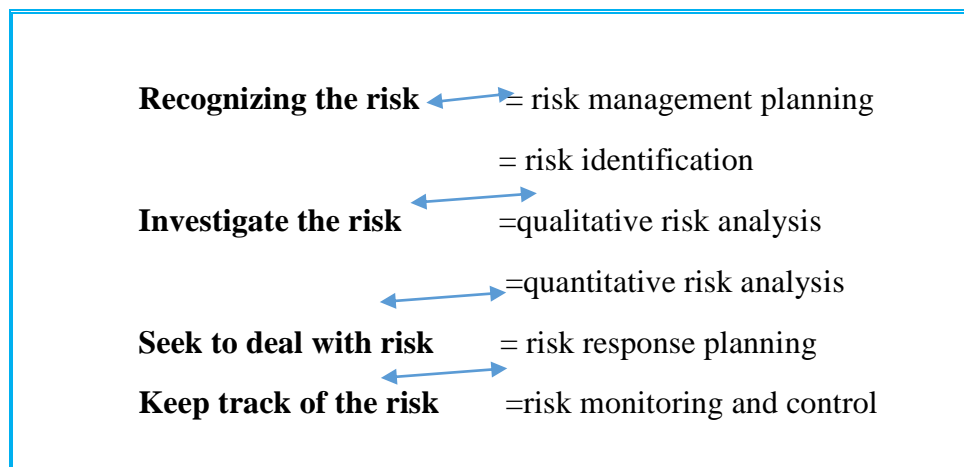


Figure 3: Risk Analysis and Management Model (ISO, 2009: 5).

### 2.5 Risk Management Process Adopted by UNHCR

Risk management is a newly adopted policy by UNHCR globally. UNHCR formally launched the risk management policy in 2014. The aim of the risk management policy in UNHCR is in order to systematically identify, review and prioritize risks faced by field operations and Headquarters entities, and to develop and implement mitigation measures, as appropriate.

The framework was developed in line with best practices of risk management in the public and private sectors and was adapted to UNHCR’s needs. The risk management policy of UNHCR bridges the various risk management policies and practices already established within the organization (UNHCR, 2014). Accordingly, the risk management policy framework of UNHCR does not offer prescribes risk treatments for operations, rather is focuses on the context-specific identification, assessment and management of risks (UNHCR, 2014).

The following diagram indicates the risk management processes adopted by UNHCR.

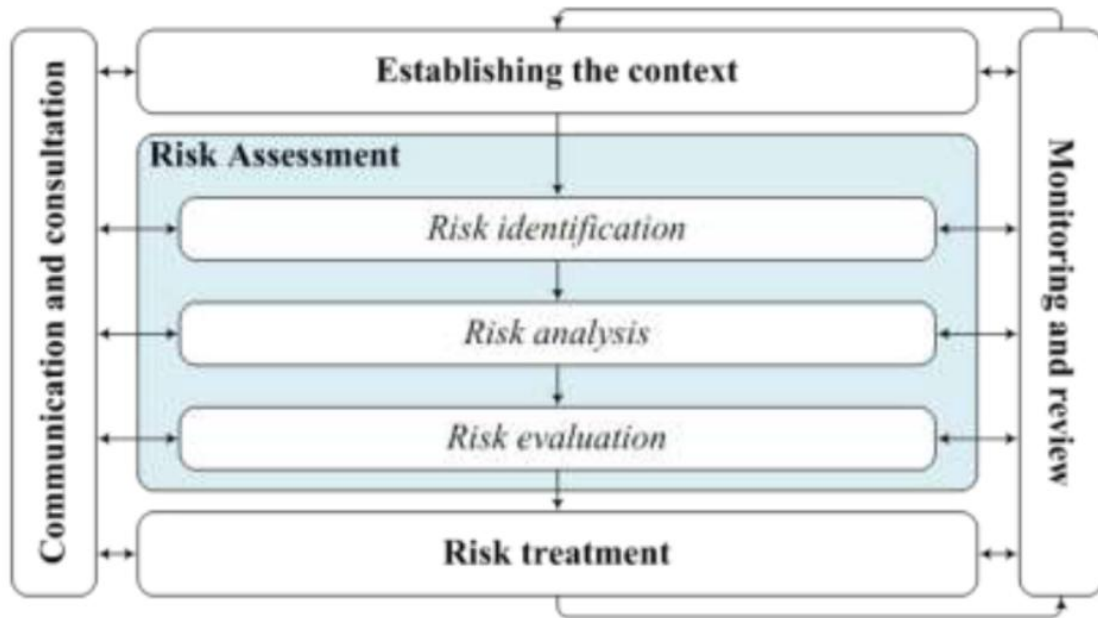


Figure 4. The Risk Management Process adopted by UNHCR (UNHCR, 2014).

## 2.6 Empirical Evidences

Several studies in the project risk management focuses only in downstream risks, upstream risks or production risks in the business organizations. However, this distinction does not provide a meaning for the case of not-for-profit, humanitarian, business sector. Moreover, this distinction does not consider the interaction among the different stakeholders. In addition, it does not consider both the internal and external conditions of the business environment by which a given project is undertaken.

According to Abdulkadir (2014) recently studies had indicated the relationship of using project risk management principles and concepts with the effective project results. For instance, Zwikael and Ahn (Abebe, 2011) showed the use of project risk management practices in successful projects. Findings of similar studies reveal that when done even moderately, project risk management has a positive relationship with the level of risk and project success. In this regard, the project is a function of the project context (project complexity, project type, both the industry, not-for-profit projects, and the country are subject to the contributing factors.

Similarly, (Bakkar et al., 2012) indicated that project risk identification, the second step in the project risk management process, is the most influential process in terms of numbers and strategies of communication effects, Risk reporting, Risk identification and risk allocation and Risk analogies, and risk control.

Sharing information about project risk with project stakeholders, constitutes an important practice for management. In this regard, the issue of investigating whether risk management influence the perception on project performance.

Based on the contingency approach to project management, the partner organization which received fund does not influence the perception of project performance. In this regard, the cost-benefit analysis of managing the revenue should not exceed the benefit, and the type of project does not influence the perception of project performance.

The risk manager is responsible for managing project results through the use of the risk management tools and techniques (Akintoye and Macleod, 1997). This is because the risk management and project management companies have associated risk managers to control and monitor the influence of risk events on schedules, costs and performance. Therefore, project activities remain under the attention of risk management over the project life cycle. The main role and responsibilities of the risk manager is to coordinating activities in order to identify, assess and respond to the project risk management. According to Hailu (2016) the risk manager masters control techniques carrying throughout the project cycle management. This is in line with the one of the managerial functions to control. Therefore, the position of the risk manager and the results of the project are the following hypothesis; the presence of a risk manager does not influence project performance.



The effective implementation of risk management strategies provides an opportunity to project success. In this regard, Abraham (2013) indicated that risk response measures directly related to project success. The objective of risk management is to identify potential problems before they occur and to plan and carry out risk-handling activities in order to mitigate potential risks (Doyel, 2007)). Risk management is a continuous, forward-looking process that must be an integral part of day-to-day business activities and processes. Risk management should address issues that could endanger achievement of critical objectives. A continuous risk management approach is applied to effectively anticipate and mitigate the risks that have critical impact on the project. Projects are unique by their very nature and complex. It is not possible to formulate and implement projects without the possibility of uncertain events which either positively or negatively impact performance. Therefore, risk is inherent, and there is no risk-free project environment.

Traditionally project success is measured in terms of an ability to accomplish projects on time, within the cost and performance goals, quality and stakeholders' expectations (Shenhar, Dvir, Levy, and Maltz, 2001). Similar view is provided by Project Management Institute (2004) that any project success is measured in terms of time, cost, quality and customer satisfaction. Besides, according to Hillson (2009) delivering the project on schedule, on budget and as per the quality standard is what project success entails. Such project success allows the project's output to meet the promised benefits to stakeholder.

However, experience in project management evidenced that organizations have experienced projects delay, over budget, change in scope over time (Cynthia, 2005). Occasionally this phenomenon entails the existence of project risks.

According to PMI (2009) project risk is defined as 'an uncertain' event or condition, if it occurs, which has a positive or negative impact on the project's objective. On the other hand, Heldman (2005) the common types of project risks include technical risks, project management risks, organizational risks, financial risks, external risks, and compliance risks. Farrell (2005) argued that failure to identify and inability to properly and timely manage any project uncertainties lead towards the emergence of risks on project success. On the other hand, McFarlan (1981) indicated that project failure is caused due to lack of attention to individual project risks, aggregate risk of portfolio of projects and the recognition that different types of projects require different types of

project management. If project risk factors are not closely measured, assessed and controlled, then there is a high possibility of occurrence of project cost overrun and time overrun (Ewusi-Mensah, 1997). Ropponen and Lyytinen (1997) as well as McGrew and Bilotta (2000) consider the risk management process in more detail, arguing that risk management activities have a positive impact on timely project delivery.

Davies, C. (2000) stated that risk management planning has a positive impact on completing the project on time. Besides, it is widely acknowledged that project risk management can help to successfully accomplish the project as per the stakeholders' expectations. Each of the project risk management techniques including the risk response plans helps to assess its contribution in meeting the planned project duration.

Due to the apparent influence of risks projects performance in terms of time, budget and quality objectives are impacted (Loose more, 2006). Besides, (Abebe, 2011 and Bakker, 2020) argued that project risk management needs to be part of the project managements' decision-making process. Because it provides decision-makers an evidence to make informed decision to identify potential risks, assess the cause-effect as well as to identify an appropriate risk management method (Mobey & Parker, 2002). According to (Clark, 2000) conducting project risk management process to cope, to implement, potential project risks through assessing and determining project feasibility is one of the main challenges that impacted the performance of development projects in Ethiopia (Kinyua, 2015). Analyzing and controlling the risks to minimize loss of resources; time, cost, quality, stakeholders' expectations in alleviating risks through proper planning (Clark, 2000, Getachew Aberra, 2015 and Yesuf Ahmed, 2015). According to Abdela (2014) the project managers' perception on performance is rather based on their personal experiences, gut and feeling to plan and manage the project performance.

## **2.7 Conceptual Framework of the Research**

The below is the theoretical framework of the research developed based on the literature survey.



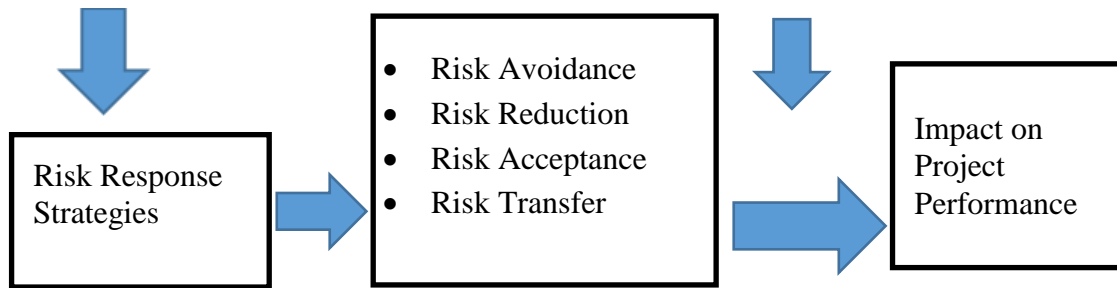


Figure 5. Conceptual Framework of the Research.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Methodology**

This research adopted an explanatory design. Besides, the research employed a mixed approach to the study using both quantitative and qualitative data. It describes the question of how the risk management concept was perceived and practiced. In addition, the research was employed a correlation design because it was concerned to systematically measure the relationship on how one variable affects the other and aimed to predict the impact of the risk management components on project performance. Therefore, a correlational design was employed to assess the relationship between the independent and dependent variables of the research.

#### **3.2 Source and Type of Data**

The research used both primary and secondary data sources. It employed a mixed approach to qualitative and quantitative data collection and analysis methods. Accordingly, a qualitative data was gathered using on how the concept of risk was formulated and structured (UNHCR, 2018).

Qualitative data on the perception and opinion on risk management practices was collected using a semi-structures key informant interview (KII) checklist. Participants of the KII were purposively identified to meet the data validity and reliability. In this regard, the senior management team of the implementing partners were contacted and interviewed.

### **3.3 Target Population**

Target population refers to the total number of sample interest of the research (Oso and Onen 2009). The total population of the research was quantified. In this regard, the total population of the research were 112 employees of the implementing partners (IPs) who were responsible for the management of the PPAs during the research period. In this regard, the target population of the study were 112 individuals identified as focal persons for the management of project partnership agreements with UNHCR. In this regard, the target population of the study was obtained from the contact list of 112 individuals who were identified as focal persons for the management of project partnership agreements with UNHCR. Therefore, project managers and PPA management participants were identified as target population of the research because they are relevant to meet the research questions and objectives.

### **3.4 Method of Sampling**

Sampling is the act of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population (Sekaran, 2003). The total number of employees of the implementing partners involved in the management of the project partnership agreement with UNHCR in Ethiopia was the population of the research,

Simple random sampling technique was used by which each member of the target population has an equal chance of being selected. In this regard, samples were randomly selected using a lottery sampling method.

### **3.5 Determination of Sample Size**

Since the target population of the research is quantified the sample size was determined using the following sample size determination formula (Sekaran, 2003).

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n= sample size,

N= Target Population of the research

e = level of precision.

Commonly a precision level of 5% was assumed for random sampling surveys (Sekaran, 2003). Therefore, sample size (n) =  $112/1+112(0.05)^2$ . Accordingly, the sample size of the research was 88.

### **3.6 Methods of Data Analysis**

A semi-structured questionnaire was prepared, reviewed and administered to collect quantitative data. A questionnaire was designed based on ISO 31000 (2009) guideline on project risk management principles and standards. The questionnaire was designed to measure responses using five-point Scale. The questionnaire was designed to incorporate the valid and reliable measure for the four independent variables of the risk management components; risk assessment, risk analysis, risk planning, risk mitigation, and risk monitoring and control. Besides, the questionnaire has included a dependent variable item aimed to explore if there is a variance regarding to respondents' perception on the concept of risk and project risk management.

The qualitative data was obtained through administering a semi-structured key informant interview (KII) guideline. An expert opinion on the perception and practice of risk management on UNHCR funded projects was also collected using KII guideline. The data collection tools were distributed to the respondents through email. An online data collection method was used to reach the respondents. In this regard, the questionnaire and the KII data collection tools were sent through email to the selected respondents located both at the head offices as well as at the project sites in the field areas. Besides, the data collection tools were presented physically using a hard copy, printed out formats.

Data validity was maintained through conducting an expert review on the content of the data collection tools against the research objectives. The data collection tools were edited and redesigned based on the feedback received. In this regard, the internal consistency and data reliability was tested before starting the data collection process.

Quantitative data was analyzed using descriptive statistics by weight percentages, mean, variance, standard deviation, correlation analysis and multiple regression analysis. On the other hand, Pearson Correlation was utilized because the data collected were ordinal. The research findings were derived based on the data gathered. Through triangulating the data, the research findings

were summarized, and conclusions were derived based on data analysis and interpretation of the results. Therefore, the triangulation method used to check the accuracy of responses towards the intended objectives of the research.

The survey questionnaire was made to address the purpose of the research through responding to the research questions. In due course, objectives of the research were met through operationalization of the variables in the data collection instruments. Hence, the data measurement was five interval scaled data set for analysis.

The qualitative data was edited, coded, and transcribed on SPSS Version 20 for analysis. A triangulation was made to validate the data while data presentation, analysis and discussions on the main findings of the research.

The data analysis was done on the number and types of variables involved. Univariate data was carried out where there was only one variable involved. Univariate data was summarized by mean, mode, median, variance and standard deviations way of measures. In addition, descriptive statistics was used to assess the extent of variance among the selected variables. Inferential statistics used a non-parametric statistic which makes no explicit assumption regarding the normality of distribution in the population and were used because the data collected on a nominal or ordinal scale. Hence, Pearson correlation coefficient is appropriate for analyzing interval-and ratio-scaled variables (Sekaran, 2003). Besides, the Pearson correlation analysis test was employed to determine the significance of the relationships between the dependent and independent variables of the research. Whereas multivariate analysis model was used to analyze when more than two variables were involved to test the hypothesis. The research hypotheses were tested using tests of significance which involves an assessment on the probability of specific sampling results to drawn conclusion and to generalize to the wider target population of the research.

### **3.7 Model Specification**

The regression model provides an analysis of the exploratory and predictive purposes. Besides. the regression model shows the relationship between one dependent variable of project performance and more independent variables of risk management components. In this regard, a multiple linear

regression analysis model was used to test the research hypotheses were formulated in null forms. As explained by (Cook, 1977) the following formula is a regression model.

$$Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p$$

Where:

**Y** – the value of the dependent variable.

**B<sub>0</sub>** – is a constant (shows the value of Y when the value of X=0)

**X, X<sub>1</sub>, X<sub>p</sub>** – the value of the independent variable,

**B<sub>1</sub>, B<sub>2</sub>, B<sub>p</sub>** – the regression coefficient (shows how much Y changes for each unit change in X).

This model is linear because it is linear in the parameters **B<sub>0</sub>, B<sub>1</sub>, B<sub>2</sub> and ... B<sub>p</sub>**

This expression represents the relationship between the dependent variable and the independent variables as a weighted average in which the regression coefficients ( $\beta$ 's) are the weights. Unlike the usual weights in a weighted average, it is possible for the regression coefficients to be negative. According to Cook (1977) a fundamental assumption in this model is that the effect of each independent variable is additive. It is assumed that the relationship of the dependent variable with each independent variable is linear (straight-line), which is a reasonable first approximation.

### **3.8 Description of Variables**

The research variables were established to determine the extent to which the risk management components influenced the performance of projects. The independent variables (IVs) constituted the project risk management components of risk assessment, risk analysis, risk planning, risk mitigation and risk monitoring and control. While the dependent variable (DV) was project performance parameters including cost, time, quality, designed project goals, project safety standards, organizational strategic objectives, compliance to donor requirements and stakeholders' satisfaction (Quangyen Tran and Yezhung Tian, 2013).

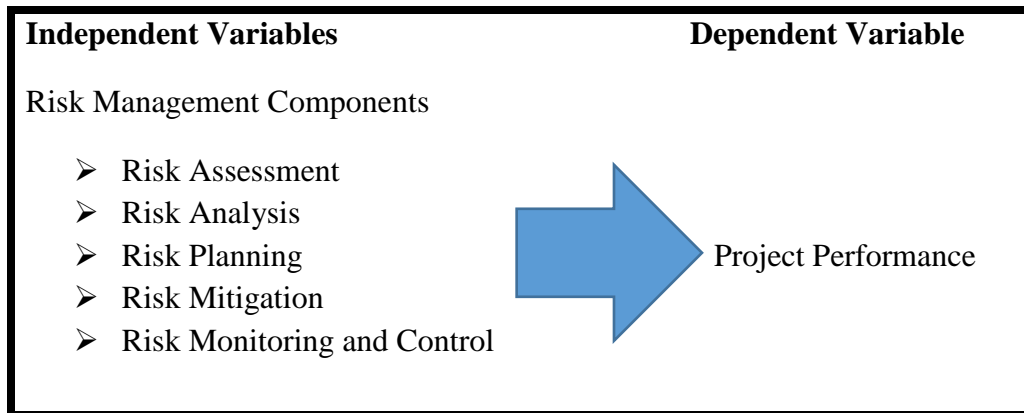


Figure 6. The Research Variables

## CHAPTER FOUR

### DATA PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter presents the data obtained from samples of the research and an interpretation on the findings. The data were entered SPSS version 20 of windows software program for analysis. The data analysis was made to establish test for the reliability of the measures, the frequency distribution of variables, descriptive statistics of mean and standard deviation, the Pearson correlation analysis and hypotheses testing.

#### 4.2 Response Rate

A total of 88 questionnaires were distributed to the respondents and a total of 83 responses were returned having with a response rate of 94.31%.

##### 4.2.1 Data Reliability Test

Reliability refers to an internal consistency or dependability of a measuring instrument using a Cronbach's Alpha test (Sekaran, 2003). Therefore, this test helps to validate the consistency of the research questions itemized for the risk management components.

Table 1. SPSS output for the reliability of the research questions



Table 1. SPSS output for the reliability of the research questions

Cronbach's Alpha	N of Items
.801	69

Source: Survey Data Analysis

The reliability test helps to conduct a repeated measures of variance analysis as well as to perform a two-way factorial analysis of variance (ANOVA) with one observation per cell. The Cronbach's Alpha was used through taking the reliability scores which are expressed numerically as a coefficient. Accordingly, a coefficient score of 1.00 indicates a test of perfectly reliable. According to Sekaran (2003) a coefficient of 0.70 is an acceptable degree of reliability.

Table 2. Reliability of dependent and independent research variables

Cronbach's Alpha	N of Items
.724	8

Source: Survey Data Analysis

The Cronbach's Alpha Coefficient for independent and dependent variables of the research was 0.724 which means that Cronbach's Alpha Coefficient value was acceptable and reliable.

### 4.3 Demographic Variables

Table 3. Respondents' Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	59	71.1	71.1	71.1
Valid Female	24	28.9	28.9	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

71.1% of the respondents were male and the remaining 28.9% were females.

Table 4. Respondents' level of education

	Frequency	Percent	Valid Percent	Cumulative Percent
Degree	24	28.9	28.9	28.9
Masters	58	69.9	69.9	98.8
PhD	1	1.2	1.2	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

28.9% of the respondents had degree, 69.9% had master's degree while one of the respondents had doctoral degree.

Table 5. Respondents Experience on Current Organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-2 Years	5	6.0	6.0	6.0
2-3 Years	24	28.9	28.9	34.9
3-4 Years	31	37.3	37.3	72.3
4-5 Years	12	14.5	14.5	86.7
>5 Years	11	13.3	13.3	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

12% of the respondents were experienced for a period less than five years while 88% of the respondents had more than five years' experience on Project Management.

Table 6. Respondents' role in current organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Program Director	3	3.6	3.6	3.6
Manager	42	50.6	50.6	54.2
Coordinator	33	39.8	39.8	94.0
Officer	5	6.0	6.0	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

3.6 % of the respondents were program directors. 50.6% and 39.8% were project managers while 39.8% of the respondents were project coordinators. The remaining 6% of the respondents were project officers.

The majority of the respondents were middle-level management team members in their respective organizations.

Table 7. Respondents' work experience in current organization

	Frequency	Percent	Valid Percent	Cumulative Percent
1-2 Years	5	6.0	6.0	6.0
2-3 Years	24	28.9	28.9	34.9
3-4 Years	31	37.3	37.3	72.3
4-5 Years	12	14.5	14.5	86.7
>5 Years	11	13.3	13.3	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

6% of the respondents had one-to- two years' work experience in the current organization, while 28.9% of the respondents had two-to-three years of work experience followed by 37.3% of the respondents who have three-to-four years' work experience. 14.5% of the respondents had a length of four-to-five years' work experience while 13.3% of the respondents had more than five years work experience with the current organization. Most of the respondents had a relevant work experience in the current organization.

14.5% of the respondents had managed a project value <USD 100,000 while 51.8% of the respondents have managed a value that ranges between USD100,000-500,000. The remaining, 9.2% of the respondents replied that they were responsible for the management of a project contract amount between USD 500,000-1,000,000 while 4.8% indicated that they had managed a project value >1,000,000 USD.

Table 8. Project time of the PPAs

	Frequency	Percent	Valid Percent	Cumulative Percent
≤Three Months	6	7.2	7.2	7.2
Three- Six Months	3	3.6	3.6	10.8
Six Months- One Year	7	8.4	8.4	19.3
One Year	65	78.3	78.3	97.6
>One Year	2	2.4	2.4	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

7.2% of the respondents had projects having less than or equal to three months' period, while 3.6% of the respondents had a project scheduled between three to six months. 8.4% of the respondents had managed a PPA of six months to one-year long. 78.3% of the respondents had projects life of one year, while 2.4% of the respondents had multiyear projects. Therefore, the samples were relevant to address the research questions.

## 4.4 Result of Descriptive Statistics

### 4.4.1 Respondents' Perception on the Concept of Risk and Risk Management

Table 9. Respondents' perception on the concept of risk

	Frequency	Percent	Valid Percent	Cumulative Percent
Risk is a Threat	16	19.3	19.3	19.3
Risk is an Opportunity	13	15.7	15.7	34.9
There is a positive relation between risk and performance	11	13.3	13.3	48.2
Valid Risk register enhances risk monitoring	24	28.9	28.9	77.1
Risk mitigation results in project effectiveness	10	12.0	12.0	89.2
NA	9	10.8	10.8	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

19.3 % of the respondents had perceived the concept of risk as a threat that only negatively affects project performance, while 15.7 %, of the respondents had an understanding that risk is an event which entails an opportunity. 13.3% of the respondents indicated a positive relationship between project risk management and project performance. 28.9% of the respondents understood that the use of risk register enhances risk monitoring. 12 % of the respondents replied that risk mitigation tools and techniques contribute to project effectiveness.

Most of the respondents had perceived the concept of risk as an opportunity to positively impact project performance. However, the remaining 19.3% of the respondents had perceived risk as a threat that only negatively impact project performance.

Table 10. Descriptive Statistics on respondents' perception on the concept of risk

	N	Mean	Std. Deviation
Risk as an opportunity	74	3.34	1.474
Use of risk register	66	3.44	1.541
Use of risk mitigation	69	3.29	1.601
Risk reporting	71	3.42	1.509
Valid N (list wise)	66		

Source: Survey Data Analysis

The variance was low for all of the variables on perception. It indicates that all the respondents had similar understanding on the concept of risk close to the mean.

Table 11. Correlation analysis of respondents' perception on risk management

	PER	QLT	QNT	REG	MIT	MON
Perception on Risk	1					
Risk assessment	.126	1				
Risk analysis	.085	-.070	1			
Risk Planning	-.113	-.099	-.123	1		
Risk Mitigation	.165	.119	.238*	-.145	1	
Risk Monitoring	.277*	-.081	-.112	.101	.142	1

\*. Correlation is significant at the 0.05 level (2-tailed). \*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data Analysis

The above correlation table indicated a positive correlation between respondent's perception on risk and risk mitigation, and risk monitoring. Which means that respondents' perception on the positive impact of risk management on project performance had enhanced respondents' practice on risk mitigation and risk monitoring.

The descriptive analysis indicated a low variance on perception for all variables. It explains that all the respondents had an understanding on the concept of risk and risk management close to the mean.

The correlation analysis pointed out a positive and strong correlation between respondent's perception on the concept of risk of risk monitoring and risk mitigation. Which explains that the use of risk register, by the respondents, had enhanced the effectiveness of risk monitoring and control activities.

An analysis of the interview responses indicated that risk is an event that only negatively affects project performance. In addition, uncertain events like unavailability of future funds at the initial phase and change on project scope during implementation stage, if not addressed, are regarded as risk. On the other hand, the interview informants indicated that risk management established to oversees project performance.

To summarize, a slight deviation was observed between the conventional definition on the concept of risk (PMI, IPM, Hillson, 2014) and respondents' perception. However, contrary to the existing variation on perception, there is a profound awareness on the use of risk register for effectiveness of the risk mitigation, and risk monitoring and control processes.

The interview informant explained on how the concept risk was practiced;

*"...in our organization, the risk management policy was designed to strengthen oversees project performance, establish a risk management working group and risk management system".*

Another informant defined the concept of risk based on perceived experience;

*"we are not always confident on the availability of new funds for new projects of every year. Therefore, it is a high risk to keep the project resources including personnel. In this regard, a variety of risk mitigation measures are taken place throughout the project lifetime. Such risk mitigation strategies and plans include budget realignment, and PPA [project partnership agreement] amendments".*

#### **4.4.2 Assessment on Risk Identification Practices**

Table 12. Risk Identification

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	54	65.1	65.1
	No	13	15.7	80.7
	Partially	16	19.3	100.0
	Total	83	100.0	100.0

Source: Survey Data Analysis

65.1% of the respondents indicated the presence of a risk identification activities, while 15.7% had no experience on practicing risk identification tasks. 19.3% of the respondents reported that risk identification activities were present but not regularly practiced. The majority of the respondents had an experience on engaging in the risk identification processes.

Table 13. The use of Qualitative Risk Assessment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Use of Probability and Impact Assessment	19	22.9	28.4
	Use of Probability and Impact Matrix	2	2.4	31.3
	Qualitative Risk Data Assessment	27	32.5	71.6
	Risk Categorization	9	10.8	85.1
	Use of Expert Judgement	10	12.0	100.0
	Total	67	80.7	100.0
Missing	System	16	19.3	
Total		83	100.0	
Total		83	100.0	

Source: Survey Data Analysis

22.9% of the respondents had used probability and impact assessment while 2.4% of the respondents had conducted probability and impact matrix to perform a qualitative risk assessment. 32.5% of the respondents employed a risk data quality assessment. 10.8% of the respondents indicated on the use of risk categorization, while 12.0% used an expert judgement technique while conducting a qualitative risk assessment.

Most of the research respondents, 80.7%, practiced qualitative risk assessment practices. The use of qualitative risk data assessment was the most common technique employed in the risk analysis

and management of projects. But, the use of probability and impact matrix as a technique of qualitative risk assessment was low.

Table 14. Descriptive Statistics on qualitative risk analysis

	N	Min	Max	Mean	Std. Deviation	Variance
Use of Probability and Impact Assessment	72	1.00	5.00	3.35	1.280	1.638
Use of Probability and Impact Matrix	75	1.00	5.00	3.05	1.384	1.916
Risk Data Quality Assessment	73	1.00	5.00	3.19	1.287	1.657
Risk Categorization	76	1.00	5.00	3.33	1.408	1.984
Risk Urgency Assessment	77	1.00	5.00	2.58	1.481	2.193
Use of Expert Judgement	78	1.00	5.00	3.37	1.415	2.003
Valid N (list wise)	70					

Source: Survey Data Analysis

There is high variance on the use of Probability and Impact Matrix, Risk Data Quality Assessment and Risk Categorization variables. It indicates that most of the respondents are not close enough to the mean. It indicated that the use of Probability and Impact Matrix as a technique of qualitative risk assessment was low.

On the other hand, there was low variance for the use of Risk Urgency Assessment and Use of Expert Judgement variables. which indicated that the respondents are close to the mean.

The perceived risk assessment practice was low, and there was less risk assessment practice by the respondents.

To sum up, there was a less use of qualitative risk analysis techniques by the respondents.

Table 15. Correlations Analysis of Risk Identification using Qualitative Risk Assessment techniques

	IDNT	ASSE	MAT	QLT	CATG	URGN	JUD
Risk Identification	1						
Probability X Impact Assessment	-.177	1					
Probability X Impact Matrix	-.089	.477**	1				
Risk Data Quality Assessment	-.254*	.396**	.330**	1			
Risk Categorization	.035	.368**	.215	.504**	1		
Risk Urgency Assessment	-.098	.290*	.228	.151	0.2	1	
Use of Expert Judgement	-.022	.240*	.098	.256*	.241*	.052	1

\*. Correlation is significant at the 0.05 level (2-tailed). \*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data Analysis



There was a strong correlation between risk identification and the use of qualitative risk assessment techniques of probability and impact matrix, risk data quality assessment, and risk categorization, which indicates the presence of significant correlation at the 0.05 level.

On the other hand, there was a weak correlation of risk identification practices while using of Probability and Impact Assessment qualitative risk assessment technique. Risk quality data assessment is the most common among the qualitative risk assessment techniques followed using probability and impact assessment respectively.

Use of expert judgement was dominantly employed by the respondents to risk analysis. This result is confirmed by Abebe and W., (2011) in that Project Managers use their own personal experience and gut to make decisions on analyzing and measuring project success.

Most of the respondents had an experience on engaging in the risk identification processes. Besides, most of the respondents had practiced qualitative risk assessment. The use of qualitative risk data assessment was the most common technique employed in the risk analysis and management of projects. But, the use of probability and impact matrix as a technique of qualitative risk assessment was low. The use of expert judgement was dominantly employed by the respondents to risk analysis. This result is confirmed by the works of (Atkinson,1999) in that Project Managers use their own personal experience and gut to make decisions on analyzing and measuring project success.

The information obtained from the key informants revealed different experience on the use of risk assessment techniques. One of the informants stated;

*“The determination of a value for the probability of risk occurrence and its consequence to project objectives is a new activity for many of our project staff. So, we used to measure using own judgement”*

An informant of the interview put additional insight;

*“at the planning stage we set the risk level of the project by calculating the scores of probability and impact. But the final decision will be made by the senior management team members either to go with the risk or to not. However,*

*we always prefer to have the partnership with UNHCR because it helps our organization to meet its strategic objectives and mission as well”.*

#### 4.4.3 Assessment on Risk Analysis Practices

Table 16 Use of Quantitative Risk Analysis Method

	Frequency	Percent	Valid Percent	Cumulative Percent
Use of Analytic Hierarchy process	20	24.1	24.1	24.1
Use of Numerical Techniques	4	4.8	4.8	28.9
Use of Ranking Technique	16	19.3	19.3	48.2
Valid Use of Categorizing Technique	23	27.7	27.7	75.9
Use of Scores Probability X Impact	15	18.1	18.1	94.0
NA	5	6.0	6.0	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

24.1% had used analytical hierarchy process, 4.8% had used numerical techniques, 19.3% had used ranking techniques, 27.7% used Categorizing Technique 18.1% had used scores probability and impact matrix method of quantitative risk analysis method.

Most of the respondents had used of risk categorizing Technique is the most widely used quantitative risk analysis method. On the other hand, the use of numerical technique is the least method employed by the respondents.

Table 17. Descriptive Statistics on quantitative risk analysis

	N	Mean	Std. Deviation
Analytic Hierarchy Process	78	3.27	1.393
Numerical Technique	80	3.02	1.484
Ranking Technique	79	3.24	1.293
Categorizing Technique	80	3.10	1.289
Scores Probability X Impact	79	3.05	1.458
Valid N (list wise)	77		

Source: Survey Data Analysis

There is low variance on the use of Numerical Technique and use of Scores Probability and Impact. It indicates that respondents were close to the mean. Therefore, there was a high use of quantitative risk analysis.

There was high variance on the use of analytic hierarchy process, ranking technique, and categorizing techniques of quantitative risk analysis. This indicates that respondents are far away from the mean; less use of these techniques to conduct quantitative risk analysis.

To sum up, the overall variance is high. The use of quantitative risk analysis techniques is far from the mean. Besides, the use of risk categorizing techniques was widely practiced by the respondents for risk analysis. but there was a high variance on the use of risk analysis which indicated that the respondents had a less use of quantitative risk analysis techniques while conducting risk analysis.

An informant of the interview put additional insight;

*“at the project planning stage, we set the risk level of the project by calculating the scores of probability and impact. But the final decision will be made by the senior management team members either to go with the risk and accept the project funds to proceed implementation or to reject the offer. However, we always take the project risk because having the partnership with UNHCR helps the organization strategic objective and it is in line with the organization mission statement as well”.*

Another interview informant explained on how the risk analysis was practiced:

*“sometimes, those new to risk analysis through guessing using a discussion and communication made at the project proposal development process. We use our experience on challenges occurred and lessons learnt. Therefore, the final decision was based on the expertise and professional judgement of experienced participants of the project planning exercises”.*

#### 4.4.4 Assessment on Risk Planning Practices

Table 18. Use of Risk Register System

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	14	16.9	21.2	21.2
	Sometimes	5	6	7.6	28.8
	Don't Know	7	8.4	10.6	39.4
	Usually	18	21.7	27.3	66.7

	Always	22	26.5	33.3	100
	Total	66	79.5	100	
Missing	System	17	20.5		
Total		83	100		
Total		83	100		

Source: Survey Data Analysis

16.9 % of the respondents indicated no use of the Risk Register, 6.0 % used risk register to some extent while 8.4% of the respondents had no awareness on the use of risk register.

21.7% of the respondents had usually used risk register, while 26.5% of the respondents had always used risk register system.

There is a variation observed among the respondents on the use of risk register. This variation ranges between the never have it 16.9% and have used is always 26.5%.

The average respondents use risk register 54.2% have indicated both the presence and the use of risk register but at different level of frequency. This fact shows the presence of and use of risk register is a good opportunity the IPs have with them. This opportunity needs to further built the staff capacity to fully utilize.

There is a significant variation between the respondents who had an experience on using the risk register n=45, (54.2%) and those who had not n=21, (25.3%). Besides, the response rate for this inquiry is low in that only n=66, 79.5% of the total samples of the research have responded.

Therefore, the findings revealed the presence of a significant variation among the IPs on the use of risk register system for managing project risks. It indicates the internal differences among the implementing agencies on the ability to exercise on the system approach to project risk analysis and management through using a risk register.

In general, there was an absence of a well-established risk management and risk communication system introduced by the funding agency and use of it by the implementing partners.

One of the key informants had explained on the use of having a risk register to support the risk planning process, as follows;

*“there is a risk register system established by the organization. The use of risk register is put in place on the risk management policy of the organization. However, it is not regularly practiced by our staff”.*

Table 19. Use of Risk Register System on Risk Management Components

	Frequency	Percent	Valid Percent	Cumulative Percent
Risk Probability Assessment	24	28.9	28.9	28.9
Risk Impact Analysis	13	15.7	15.7	44.6
Risk Priority Identification	22	26.5	26.5	71.1
Risk Acceptance	3	3.6	3.6	74.7
Risk Mitigation	3	3.6	3.6	78.3
NA	18	21.7	21.7	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

28.9% of the respondents had used risk register for risk probability assessment, while 15.7% of the respondents had used for risk impact analysis. 26.5% of the respondents had used for risk priority identification process while 3.6% of the respondents had used risk register for risk mitigation activities, the same percent of respondents, 3.6% had used for risk monitoring and control.

Table 20. Descriptive Statistics on the use of risk register

	N	Mean	Std. Deviation
Risk Probability Assessment	72	3.2083	1.26644
Risk Impact Analysis	70	3.1000	1.26434
Risk Priority Identification	70	3.3857	1.14579
Risk Monitoring and Control	66	2.9394	1.28756
Risk Mitigation	69	3.1159	1.10528
Risk Closure	70	3.0143	1.20978
Valid N (list wise)	60		

Source: Survey Data Analysis

The descriptive analysis indicated the presence of high variance on the use of risk register for risk management components. The respondents were far from the mean. Which indicated less use of use of risk register system by the respondents. The use of risk register system mostly during the risk assessment and analysis during the initial stages of the project cycle. The risk register system was less used for the risk mitigation, monitoring and control purposes.

Table 21. Correlations on use of Risk Register on Risk Management Components

	1	2	3	4	5	6	7
Use of Risk Register System	1						
Risk Probability Assessment	.118	1					
Risk Impact Analysis	-.072	.358**	1				
Risk Priority Identification	.169	.392**	.319**	1			
Risk Monitoring and Control	-.089	.157	-.105	.032	1		
Risk Mitigation	-.019	.282*	.253*	.073	.009	1	
Risk Closure	.053	.274*	.096	.302*	-.112	.307*	1

\*\* . Correlation is significant at the 0.01 level (2-tailed). \* . Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Data Analysis

The above correlation analysis indicated that there was a weak and negative correlation between the use of risk register and risk assessment, analysis and risk identification, risk monitoring and control on the use of risk impact analysis, risk priority identification, and for risk monitoring and control activities.

There was a strong and positive correlation between the use of risk register system and risk management components of risk mitigation and risk closure on the use of risk probability assessment.

The respondents revealed an active use of risk register at the project planning stage for risk identification, and prioritization. This finding is in line with the explanations made on the use of risk register for risk planning approaches. According to APM (2012) a risk register is a risk planning tool. Hence, the main purpose of risk register is to support the risk assessment, risk identification, risk categorization and prioritization.

Less or no use of risk register was observed. This finding was in accordance with the statement provided by (APM,2012) which indicated that projects commonly lack for the use of risk register to document and update risk lists for future use after the post-project evaluation

Besides, (Hillson, 2014) indicated that there is less use of risk register at the project implementation stage to monitor and mitigate project risks, and there is no use of risk register at

the end result. Therefore, the impact of use of risk register is less significant, and this phenomenon is inadequately correlated towards project risks.

The risk register was used for risk assessment practices, risk identification, risk categorization and prioritization. In this way, the risk register is serving as a risk planning tool. This finding is in line with the findings of (Hillson, 2014).

The risk register system was actively used for risk identification, risk probability and impact analysis and for risk prioritization purposes. The use of risk register was active at the project formulation and planning stages in the project cycle management.

An informant had explained the status of using a risk register in the interview;

*“we have an ARA [award risk assessment] tool on the AMS [award management system] for an analysis of the risk type and severity level. Based on the findings of the ARA the SMT [senior management team] will decide either make either to accept or reject the new opportunity. When the new funds are available, we will turn to the ARA tool to analyze the risk type and severity level and present for the SMT to make decisions once again”.*

A semi-structured interview response indicated lack of risk register to document and regularly update the project risks during the project implementation and closeout stages.

To sum up, both the respondents and informants of the research had indicated lack of practice on using risk register for risk mitigation and monitoring purposes. Besides, there was no use of risk register for risk closure purpose at the final project evaluation stage. In this regard, project risks were not regularly updated and documented for the later project stages. Besides, due to lack of a functional practice on the use risk register, there was no experience to conduct risk management plan mainstreamed with the project cycle management. When projects were closed the project, risks remained open and no further action were taken for future use of lesson learnt.

#### **4.4.5 Assessment on Risk Mitigation Practices**

Table 22. Risk mitigation measures taken by the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Improve staff capacity on project management	21	25.3	25.3	25.3
Define Project scope	9	10.8	10.8	36.1
Use of Risk Breakdown Structure	5	6.0	6.0	42.2
Use of Risk Management Plan	7	8.4	8.4	50.6
Use of Risk Management Committee	10	12.0	12.0	62.7
Use of risk management system	4	4.8	4.8	67.5
Determine risk tolerance levels	4	4.8	4.8	72.3
Recognizing risk events	7	8.4	8.4	80.7
Regularly update the risk register	5	6.0	6.0	86.7
Escalate for decisions on risk severity	11	13.3	13.3	100.0
Total	83	100.0	100.0	

Source: Survey Data Analysis

25.3% of the respondents had indicated improved staff capacity on project management, 10.8% of the respondents replied defined project scope, 6% of the respondents had used risk breakdown structure as a risk mitigation strategy. 8.4% of the respondents had used risk management plan, while 12% of the respondents reported established risk management committee have reported to the practice of risk mitigation strategies used in their respective organizations.

Accordingly, most of the respondents, 25.3 %, indicated that improving staff capacity is the widely practiced way of mitigating project risks. The use of project risk management plan is the most least risk mitigation practice used as indicated by the group of respondents 8.4 % of the total responses.

Improving staff capacity was the common practice towards risk mitigation employed by the respondents. The other measures were escalating for higher level decisions on the risk severity, use of the risk management committee, instead of use of risk register, and define the project scope respectively on their commonality in practice as per the survey data. Accordingly, respondents were not experienced on the use of project risk break down structures, risk management plan and risk management system to respond to project risks. Besides, respondents were not able to determine the risk tolerance level, recognizing risk events and regularly updating the risk register.

Most of the respondents did not frequently used the risk register to monitor and mitigate project risks at the implementation stage. The risk register was not regularly updated to support the risk



mitigation and risk closure. The main risk mitigation measure employed by the respondents was to improve staff capacity on project risk management. Whereas the least risk mitigation technique used by the respondents was risk management plan.

Table 23. Descriptive Statistics on Risk Mitigation Measures

	N	Mean	Std. Deviation
Improve staff capacity	76	2.82	1.440
Define project scope	75	3.08	1.217
Use of risk breakdown structure	76	3.12	1.285
Use of project risk management plan	79	3.27	1.237
Use of risk management committee	74	2.89	1.320
Estimate risk severity	76	3.17	1.350
Determine risk tolerance	75	3.17	1.329
Recognize risk events	75	3.20	1.315
Identify new risks	77	3.26	1.261
Escalating on risk severity	79	3.14	1.375
Valid N (list wise)	64		

Source: Survey Data Analysis

The descriptive statistics analysis indicated a high variance on all of the risk mitigation measures except improve staff capacity measures. Respondents were far from the mean. Which means that the risk mitigation measures taken are less significant. There is low variance on the use of risk management committee and improving staff capacity. Which indicates that respondents were close to the mean, which shows that there is a significant use of improving staff capacity and use of risk management committee on risk mitigation measures.

Table 24. Practice of Risk Mitigation techniques

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Earned Value Analysis	15	18.1	18.8	18.8
Cost Change Management System	1	1.2	1.3	20.0
Budget Variance Analysis	43	51.8	53.8	73.8
Project Performance Analysis	8	9.6	10.0	83.8
Financial Verification	13	15.7	16.3	100.0
Total	80	96.4	100.0	
Missing				
System	3	3.6		
Total	83	100.0		

Source: Survey Data Analysis

18.1% of the respondents had indicated earned value analysis, while 1.2 % have replied the use of cost change management system to mitigate project cost overrun. 51.8% of the respondents

indicated budget variance analysis, while 9.6 of the respondents replied project performance analysis. 15.7% of the respondents had indicated financial verification exercises as a meant to mitigate risks that impact on project performance.

Most of the respondents had employed budget variance analysis to mitigate project risk on cost. On the other hand, cost change management was the least risk mitigation technique practiced by respondents.

To sum up, respondents had a significant use of risk management committee as a means to risk mitigation. Staff capacity building was also taken as a means to risk response.

An interview informant had explained the risk mitigation efforts as follows;

*“UNHCR employs a mid-term financial verification in every project period. The main findings of the financial verification will be documented, and a follow up action will be set to mitigate risks proactively. Besides, a project performance evaluation helps to ensure accountability and transparency”.*

Additional comments were provided by an interview informant;

*“... we share the main project risks and donor requirements at the project launching period. But there is inadequate staff capacity on project risk management during the implementation phase.*

#### 4.4.6 Assessment on Risk Monitoring and Control Practices

Table 25. Practice on Risk Monitoring and Control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cost Performance Index	13	15.7	16.3	16.3
	Cost Variance Analysis	13	15.7	16.3	32.5
	Schedule Performance	27	32.5	33.8	66.3
	Schedule Variance Analysis	12	14.5	15.0	81.3
	Financial Verification	15	18.1	18.8	100.0
	Total	80	96.4	100.0	
Missing	System	3	3.6		
Total		83	100.0		

Source: Survey Data Analysis

15.7% of the respondents indicated the use of cost performance index and 15.7% of the respondents cost variance analysis as a tool for monitoring and control project risk. 32.5% of the respondents have used schedule performance as a tool to risk monitor and control while 14.5% of the respondents had used schedule variance analysis. The remaining respondents, 18.1%, indicated the use of financial verification as a tool to monitoring and control project risk.

Schedule performance analysis and the financial verification were the common tools employed by the respondents for risk monitoring and control. On the other hand, schedule variance analysis was the least used risk monitoring and control tool.

Table 26. Descriptive Statistics on risk monitoring and control

	N	Mean	Std. Deviation
Cost Performance Index	83	3.17	1.188
Cost Variance Analysis	79	3.00	1.209
Schedule Performance Analysis	81	3.11	1.275
Schedule Variance Analysis	81	2.95	1.224
Valid N (list wise)	76		

Source: Survey Data Analysis

The above analysis indicated a high variance on all of the risk monitoring and control variables used by the respondents. Respondents were far away from the mean, which indicated the low practice of risk monitoring and control techniques by the respondents. An informant explained how the risk monitoring and control activities were performed;

*“The risk information is collected from project reports, project progress reports, budget forecasts and budget vs. actual monthly reviews are used and action are taken to address key issues identified. Through the mid-year a joint verification of financial reports is performed with UNHCR and new potential risks are identified and communicated internally to address the donor feedbacks. This is a mechanism established to evaluate the effectiveness of project risk mitigation in our organization”.*

A project manager, an interview informant, had an opinion on risk monitoring practices;

*“the PPA [project partnership agreement with UNHCR] used to get approved than the project start date. This is a risk which affects our performance. It is a risk which we cannot control. So, we don’t use the schedule variance as an indicator to measure project performance and to respond to the apparent risk”.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cost	20	24.1	26.3	26.3
	Schedule	3	3.6	3.9	30.3
	Quality Standard	9	10.8	11.8	42.1
	Stakeholders Satisfaction	9	10.8	11.8	53.9
	Employee Satisfaction	5	6.0	6.6	60.5
	Project Safety	3	3.6	3.9	64.5
	Cash flow Management	4	4.8	5.3	69.7
	Designed Project Goal	10	12.0	13.2	82.9
	Organizational Mission	7	8.4	9.2	92.1
	Compliance to Donor Requirements	6	7.2	7.9	100.0
	Total	76	91.6	100.0	
Missing	System	7	8.4		
Total		83	100.0		

To sum up, among the risk monitoring and control techniques schedule variance analysis was commonly employed by the respondents. The delay on project agreement approval was an external risk factor that respondents were not able to control as explained by the interview informants.

24.1% of the respondents identified that the risk management components had an impact on project performance of cost, while 3.6% of the respondents indicated the impact on schedule. 10.8% of the respondents had indicated that the risk management components employed had an impact on quality standard and stakeholders' satisfaction equally.

Table 28. Descriptive Statistics on the impact of risk management components on the performance of projects

	Mean	Std. Deviation	N
Performance of Projects	5.30	3.505	83
Risk Assessment	2.87	1.237	83
Risk Analysis	3.29	1.581	83
Risk Planning	3.24	2.228	83
Risk Mitigation	2.78	1.646	83
Risk Monitoring and Control	2.66	1.096	83

Source: Survey Data Analysis

The above table indicated that there is a high variance of the risk management components except risk planning to impact the performance of projects.

Table 29. Correlations of Risk Management Components and Performance of Projects

	PER	ASS	ANL	PLN	MIT	MON
--	-----	-----	-----	-----	-----	-----

PERFORMANCE_OF _PROJECTS	Pearson Correlation	1	.040	-.051	-.041	.011	.274*
	Sig. (2-tailed)		.718	.646	.715	.918	.012
RISK_ASSESSMENT	Pearson Correlation	.040	1	-.080	.100	.111	-.123
	Sig. (2-tailed)	.718		.473	.368	.316	.267
RISK_ANALYSIS	Pearson Correlation	-.051	-.080	1	.098	.277*	.071
	Sig. (2-tailed)	.646	.473		.380	.011	.523
RISK_PLANNING	Pearson Correlation	-.041	.100	.098	1	-.218*	-.036
	Sig. (2-tailed)	.715	.368	.380		.047	.745
RISK_MITIGATION	Pearson Correlation	.011	.111	.277*	-.218*	1	.081
	Sig. (2-tailed)	.918	.316	.011	.047		.469
RISK_MONITORING _AND_CONTROL	Pearson Correlation	.274*	-.123	.071	-.036	.081	1
	Sig. (2-tailed)	.012	.267	.523	.745	.469	
	N	83	83	83	83	83	83

\*. Correlation is significant at the 0.05 level (2-tailed) (n=83)

Source: Survey Data Analysis

The above analysis indicated the presence of a positive correlation between Risk Monitoring and Control components had a significant and positive correlation with the performance of projects project performance on cost.

On the other hand, there is a negative correlation between risk planning and risk mitigation on the performance of projects. Besides, the hypothesis is not substantial to indicate the presence of a significant relationship between the risk management components and project performance variables. Therefore, we accept the null hypothesis and reject the alternative.

An informant explained on the relationship between the risk management and its impact on the project performance:

*“The budget is not sufficient enough to cover the administrative costs of the project. But we take a share to fill the gap and sustain our partnership with UNHCR. Because, partnership with UNHCR contributes to our organizational mission”.*

A similar concern was indicated by another informant stated:

*“Due to the late start of the project, cost variances are regularly reviewed, justified and corrective actions are taken to monitor and control the project progress”.*

An informant elaborated the risk on schedule slip occurred;

*“Usually, the PPA development and approval process completed. But the project schedule covers for the period between January to December of each year. Therefore, there is a risk to finish the project on time. This situation leads to a number of project scope revision and budget amendments. Usually the mid-year project performance evaluation and the financial verification exercises end up on project scope change”.*

The research found out a negative correlation between of the risk management components and the planned project outcome, an indication on the likelihood of the risk occurrence. This finding is like the works of (Dooly, 2005) that the planned project deliverables will not be completed as originally envisioned.

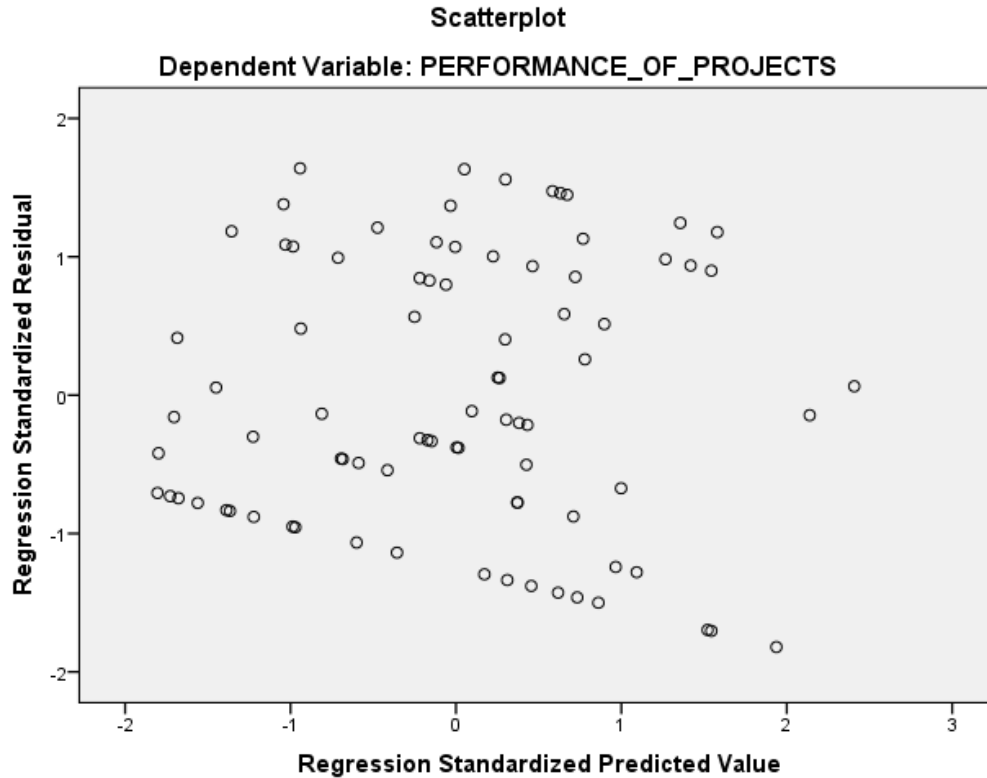
The cost change occurred during implementation had negatively impact the scope of the project replied by the interview informants. Whereas, cost variance analysis was the most common risk monitoring and control tool employed by the respondents.

#### **4.5 Result of Inferential Analysis**

This section aimed to test the research hypothesis using a multiple linear regression analysis model. Before running the regression, analysis there is a need to test the key assumptions of multiple linear regression model including linear relationship, multivariate normality, presence of no or little multicollinearity, existence of no auto correlation and homoscedasticity.

##### **4.5.1 Test of Assumptions**

Assumption #1: The relationship between the independent variables and the dependent variables is linear. The below Scatterplots show that this assumption had been met in that there is linearity between the IV and DV of the research data.



Assumption #2: There is no multicollinearity in the data.

The below analysis of collinearity statistics shows this assumption has been met, as VIF scores were well below 10, and tolerance scores above 0.2.

<b>Coefficients<sup>a</sup></b>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.912	1.721		1.692	.095		
RISK_ASSESSMENT	.214	.319	.076	.673	.503	.937	1.067
RISK_ANALYSIS	-.131	.258	-.059	-.507	.614	.878	1.139
1 RISK_PLANNING_	-.054	.180	-.035	-.301	.764	.904	1.106
RISK_MITIGATION	-.024	.254	-.011	-.095	.925	.831	1.203
RISK_MONITORING_ AND_CONTROL	.919	.353	.287	2.605	.011	.974	1.026

a. Dependent Variable: PERFORMANCE\_OF\_PROJECTS

Assumption #3: The values of the residuals are independent.

The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson = 1.943).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.294 <sup>a</sup>	.086	.027	3.458	1.943

a. Predictors: (Constant), RISK\_MONITORING\_AND\_CONTROL, RISK\_PLANNING, RISK\_ANALYSIS, RISK\_ASSESSMENT, RISK\_MITIGATION

b. Dependent Variable: PERFORMANCE\_OF\_PROJECTS

Assumption #4: The variance of the residuals is constant.

plot of standardized residuals vs standardized predicted values showed no obvious signs of funneling, suggesting the assumption of homoscedasticity has been met.

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.44	7.78	5.30	1.029	83
Std. Predicted Value	-1.804	2.408	.000	1.000	83
Standard Error of Predicted Value	.458	1.330	.911	.185	83
Adjusted Predicted Value	3.34	7.98	5.31	1.070	83
Residual	-6.295	5.669	.000	3.351	83
Std. Residual	-1.820	1.639	.000	.969	83
Stud. Residual	-1.917	1.694	-.001	1.006	83
Deleted Residual	-6.981	6.076	-.010	3.615	83
Stud. Deleted Residual	-1.952	1.715	-.001	1.012	83
Mahal. Distance	.451	11.140	4.940	2.308	83
Cook's Distance	.000	.098	.013	.015	83
Centered Leverage Value	.006	.136	.060	.028	83

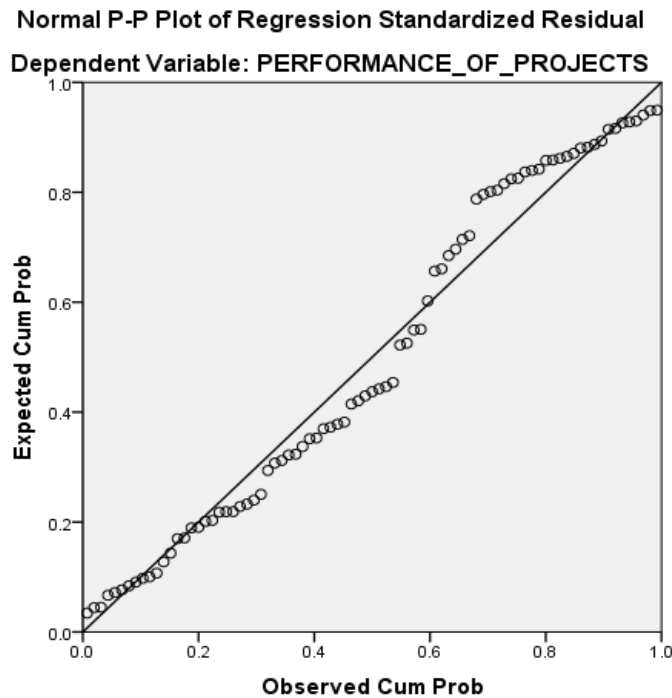
a. Dependent Variable: PERFORMANCE\_OF\_PROJECTS

Assumption #5: The values of the residuals are normally distributed.

The P-P plot for the model suggested that the assumption of normality of the residuals may have been violated. However, as only extreme deviations from normality are likely to have a significant



impact on the research findings. In this regard, since there is no extreme violation of the residuals, the results are valid.



Assumption #6: There are no influential cases biasing the model.

Cook’s Distance values were all under 1, suggesting individual cases were not unduly influencing the model. Based on the above assumptions test, the following are the multiple linear regression analysis made to test the research hypothesis. Null Hypothesis: There is no significant relationship between the risk management components of risk assessment, risk analysis, risk planning, risk mitigation, and risk monitoring and control on the Performance of Projects.

The regressing of the five independent variables of risk management against the project performance on is presented as follows;

Table 30. Regression Analysis on the impact of Risk Assessment on the performance of projects.

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.040 <sup>a</sup>	.002	-.011	3.524

The R value indicates that the impact for risk assessment component on the performance of projects is positive and equals to 40%. Based on the value of R-square’ the risk management component explains that about 2.0% of the variance in the performance of projects.

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.632	1	1.632	.131	.718 <sup>b</sup>
Residual	1005.838	81	12.418		
Total	1007.470	82			

Source: Survey Data Analysis

The F value is equal to (.131). This indicates that there is an impact for risk assessment components on the performance of projects. Therefore, the null hypothesis is rejected and accepted the alternative.

Coefficients <sup>a</sup>				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
1 (Constant)	4.974	.981		5.069 .000
RISK_ASSESSMENT	.114	.315	.040	.363 .718

Based on t value it is indicated that the risk assessment component shows a positive and significant impact on project performance, with a positive beta coefficient value.

Table 31. Regression Analysis on the impact of Risk Analysis on the performance of projects.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051 <sup>a</sup>	.003	-.010	3.522

Source: Survey Data Analysis

The R value indicates that the impact for risk assessment component on the performance of projects is positive and equals to 51%. Based on the value of R-square' the risk management component explains that about 3.0% of the variance in the performance of projects.

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.631	1	2.631	.212	.646 <sup>b</sup>
Residual	1004.839	81	12.405		
Total	1007.470	82			

Source: Survey Data Analysis

The F value is equal to (.212). This indicates that there is an impact for risk assessment components on the performance of projects. Therefore, the null hypothesis is rejected and accepted the alternative.

		<b>Coefficients<sup>a</sup></b>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.674	.897		6.328	.000
	RISK_ANALYSIS	-.113	.246	-.051	-.461	.646

Source: Survey Data Analysis

Based on t value it is indicated that the risk assessment component shows a negative impact on project performance. Besides, the beta coefficient value is also negative.

Table 32. Regression Analysis on the impact of Risk Planning on the performance of projects.

<b>Model Summary</b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.041 <sup>a</sup>	.002	-.011	3.524	

Source: Survey Data Analysis

The R value indicates that the impact for risk assessment component on the performance of projects is positive and equals to 41%. Based on the value of R-square' the risk management component explains that about 2.0% of the variance in the performance of projects.

### ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.663	1	1.663	.134	.715 <sup>b</sup>
1 Residual	1005.807	81	12.417		
Total	1007.470	82			

Source: Survey Data Analysis

The F value is equal to (.134). This indicates that there is an impact for risk assessment components on the performance of projects. Therefore, the null hypothesis is rejected and accepted the alternative.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.508	.686		8.035	.000
	RISK_PLANNING	-.064	.175	-.041	-.366	.715

Source: Survey Data Analysis

Based on t value it is indicated that the risk assessment component shows a negative impact on project performance. Besides, the beta coefficient value is also negative.

Table 33. Regression Analysis on the impact of Risk Mitigation on the performance of projects.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.011 <sup>a</sup>	.000	-.012	3.527

Source: Survey Data Analysis

The R value indicates that the impact for risk assessment component on the performance of projects is positive and equals to 11%. Based on the value of R-square' the risk management component explains 0.0% of the variance in the performance of projects.

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.132	1	.132	.011	.918 <sup>b</sup>
Residual	1007.338	81	12.436		
Total	1007.470	82			

Source: Survey Data Analysis

The F value is equal to (.11). This indicates that there is an impact for risk assessment components on the performance of projects. Therefore, the null hypothesis is rejected and accepted the alternative.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.233	.764		6.851	.000
	RISK_MITIGATION	.024	.237	.011	.103	.918

a. Dependent Variable: PERFORMANCE\_OF\_PROJECTS

Source: Survey Data Analysis

Based on t value indicated that the risk assessment component on risk mitigation is positively and significantly impact the project performance. Besides, the beta coefficient value is also positive.

Table 34. Regression Analysis on the impact of Risk Monitoring and Control on the performance of projects.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.274 <sup>a</sup>	.075	.064	3.391

Source: Survey Data Analysis

The R value indicates that the impact for risk assessment component on the performance of projects is positive and equals to 27.4%. Based on the value of R-square' the risk management component explains that about 7.5% of the variance in the performance of projects.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	75.804	1	75.804	6.590	.012 <sup>b</sup>
1 Residual	931.666	81	11.502		
Total	1007.470	82			

Source: Survey Data Analysis

The F value is equal to (6.59). This indicates that there is an impact for risk assessment components on the performance of projects. Therefore, the null hypothesis is rejected and accepted the alternative.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.966	.983		3.018	.003
1 RISK_MONITORING _AND_CONTROL	.877	.342	.274	2.567	.012

a. Dependent Variable: PERFORMANCE\_OF\_PROJECTS

Source: Survey Data Analysis

Based on t value indicated that the risk assessment component on risk mitigation is positively and significantly impact the project performance. Besides, the beta coefficient value is also positive.

#### **4.6 Discussion**

The respondents had relevant knowledge and work experience specific to project management and engaged actively in the risk identification process while using qualitative risk assessment technique. In this regard, most respondents have the opportunity to communicate project risks with the funding agency. But, there was a significant variation between respondents' perception on the concept of risk and the conventional definition (PMI, 2009 & Hillson, 2014). But, most of the respondents had an understanding on the importance of risk register system for effective risk management. However, there was a high variance on the use of risk register to support the risk management activities.

Risk analysis was the technique dominantly employed by the respondents. This result is confirmed by the works of (Bakkar et al, 2012 & Abdela, 2014) in that Project Managers use their own personal experience and gut to make decisions on analyzing and measuring project performance. But, there was a high variance on the use quantitative risk analysis techniques. The risk urgency assessment was the most common quantitative risk analysis technique commonly employed by the respondents.

The use of qualitative risk data assessment was the most common technique employed. But, the use of probability and impact matrix as a technique of qualitative risk assessment was low. There was a high variance on the use of Probability and Impact Matrix, Risk Quality Assessment and Risk Categorization variables. On the other hand, there was low variance for the use of Risk Urgency Assessment and Use of Expert Judgement variables. which indicated that the respondents were close to the mean in that the use of expert judgement was strongly employed to perform risk analysis. On the other hand, there was high variance on the use of analytic hierarchy process, ranking technique, and categorizing techniques of quantitative risk analysis. Therefore, respondents were far from the mean due to less quantitative risk analysis.

Respondents explained less use of use of risk register system at the project planning stage for risk identification and prioritization processes. This finding is in line with (APM, 2012 & Hillson, 2014) that risk register is a risk planning tool. Hence, the main purpose of the use of risk register was to support the risk assessment practices, risk identification, risk categorization and prioritization.

However, there was no practice on using the risk register to update the risk list for future use after the post-project evaluation. This finding was in accordance with the results obtained by (Abdulkadir, 2014). There was less use of risk register at the project implementation stage to monitor and mitigate project risks, and there is no use of risk register. Therefore, the impact of the use of risk register was less significant (Abdulkadir, 2014).

Risk mitigation was conducted by using the risk management committee and improving staff capacity. Schedule performance analysis and the financial verification were the common tools

employed for risk monitoring and control. Cost variance analysis was most commonly employed by the respondents to risk monitoring and control. On the other hand, schedule variance analysis was the least used risk monitoring and control tool. Besides, there were no use of risk break down structures (RBS), no use of risk management plan by the respondents. As a result, there was a weak effort made by the respondents to determine the risk tolerance level, recognizing risk events and less use of regularly updating the risk register. Moreover, it is observed that there was an absence of risk evaluation and feedback mechanism to risk mitigation and risk closure.

There was a high variance on all the risk mitigation measures except improve staff capacity and use of risk management committee, which indicates that respondents were far from the mean. Therefore, the risk mitigation measures taken were less significant. But there was low variance on the use of risk management committee and improving staff capacity. Which indicates that respondents were close to the mean, which shows that there is a significant use of improving staff capacity and use of risk management committee on risk mitigation measures. Budget variance analysis as a risk mitigation technique was the common practice explained by the majority of the respondents. Schedule performance analysis and financial verification were the two most common techniques employed for risk monitoring and control. On the other hand, schedule variance analysis was the least used risk monitoring and control tool by the respondents.

The existence of risk management had significantly and positively impacted the performance of projects. The risk management components had a significant impact on project performance on cost, time, quality standard, similarly evidenced by the works of (Didraga, 2013 & Roque, 2013).

## **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Summary of Major Findings**

Most of the respondents had an opportunity to discuss and communicate with the funding agency on issues related to project risks. However, a significant number of respondents perceived the concept of risk as an event which only negatively affects project performance. But, contrary to the



perceived variation on the concept of risk which evidenced a profound awareness among the respondents on the use of risk register was revealed. But there is a significant variation existed between the respondents who are using the risk register and between those who did not have practiced it.

Most of the respondents realized the use of risk register system supports for the effectiveness of the risk management process. But, the risk register system was not used to support the risk monitoring and control activities. This fact indicated the internal differences among the implementing partners on using a systems approach to project risk management. Besides, the variation among the respondents on the use of risk register system evidenced an absence of a risk analysis and management system established by the implementing agency to enhance the capacity of implementing partners to project risk analysis and management processes.

The presence of a high variance on the risk monitoring and control variables indicated the low practice of risk monitoring and control techniques employed by the respondents during the research period. Besides, there was an absence of risk evaluation and feedback mechanism to risk mitigation and risk closure. On the other hand, there was a negative correlation between the use of risk register and project performance on project safety standards. This means that, the project safety standards were not incorporated when the risk register was used for the risk analysis and management components. In general, the perceived risk assessment practice was low, and there was less risk assessment practice by the respondents.

The correlation analysis indicated that there is no significant impact of the risk management components on project performance on time and quality parameters. Besides, the use of risk register for risk planning had a negative impact on project safety standards. Similarly, the risk monitoring practices had negatively impacted the project performance on stakeholders' satisfaction as well as safety standards. In this regard, the hypothesis is not substantial to indicate the presence of a significant relationship between the risk management components employed and project performance variables. From the result of the multiple regression analysis, there is a significant impact of the risk management components on the performance of projects.

## **5.2 Conclusions**

The study concludes that there is a significant relationship between the risk management components and the performance of projects. The descriptive statistics table indicated a high variance on all the risk monitoring and control variables used by the respondents. Respondents were far away from the mean, which indicated the low practice of risk monitoring and control techniques by the respondents. A strong and positive correlation identified between risk management components of Risk Analysis and project performance on cost. On the other hand, the presence of a weak and negative correlation observed between the use of risk register for risk planning and project performance on safety standards was explained by the respondents during the research period. This means that, the project safety standards were not incorporated when the risk register was used for the risk analysis and management components. Similarly, a weak and negative correlation was identified between risk monitoring on stakeholders' satisfaction as well as safety standards. In general, it is observed that there are weak and negative correlations between the risk management components and project performance parameters which indicated low level of practicing risk management components by the respondents during the research period.

The overall findings of the research revealed a low level of both the perception and practice of implementing risk management components on the management of projects financed by UNHCR in Ethiopia during the research period.

## **5.3 Recommendations**

Risk should not have perceived as a standalone concept but should be determined by events giving rise to risk. In this regard, both the implementing partners and the funding agency are required to identify and manage the risk events that negatively affects the performance of projects. In order to enhance the risk awareness and implementation of the risk management components the use of an inclusive risk register system needs to be to document and exchange of quality risk data to ensure risk forecasting and to mitigate the new risks that may occur during the project implementation phase.

Besides, in order to effectively achieve the project designed goals the delay in project partnership agreement development and approval process needs to be included in the project risk assessments. The delay in project start up schedule is against the project work plan agreed. Therefore, a risk response actions needs to be taken to prevent the cyclical occurrence of project risks year after year. Such a risk event needs to be captured in the risk register and risks need to be closed and lessons learnt from the past projects.

An effective risk communication forum needs to be established and run by UNHCR, to create awareness among the project employees. This forum can be functional using risk focal persons. The funding agency needs to support for risk closure when projects are completed. For instance, the negative Beta weight indicated the need to enhance the risk management practices to positively impact the project performance.

Future more, similar studies are encouraged to examine the impact of risk management on project performance using the moderating variables of project type, size, complexity and organizational maturity and provide a more detailed analysis of the projects financed by UNHCR in Ethiopia.

## **References**

- Abdela, N. M., 2014. *A Study on Planning and Scheduling in Federal Road Projects of Ethiopia: Causes of Non-Excusable Delay in Selected Projects*, Addis Ababa, Ethiopia: Addis Ababa University, School of Commerce .
- Abdulkadir, H. S., 2014. Challenges of Implementing Internal Control Systems in non-governmental organizations (NGOs) in Kenya; A Case of Faith- Based Organizations (FBO) in Coast Region.. *Journal of Business and Management (ISOR-JBM)*. Volume 16, Issue 3. Ver.II, IOSR Journal of Business and Management (ISOR-JBM). Volume 1.pp. PP 75-62.

- Abebe, & W., 2011. *Risk factors leading to cost overrun in Ethiopian federal road construction projects and its consequences*, Addis Ababa: Addis Ababa University Institute of Technology <http://hdl.hand>.
- Abraham, E., 2013. *What factors Impact the Effectiveness of International Non-Governmental Organizations (INGOS) in Ethiopia..* [Online] Available at: <https://digitalscholarship.unlv.edu/thesedissertations/1966>
- APM, 2012. *Body of Knowledge*. 6 ed. High Wycombe, Buks, UK: Associate for Project Management, APM Publishing.
- Atkinson, 1999. Project management: cost, time and quality, two best guesses and a phenomenon, it's time to accept other success criteria. *International Journal of Project Management* , Volume 17, pp. 337-342.
- Bakker., K. B. A. W. H., 2010. Does Risk Management Contributes to IT Project Success? A meta-analysis of emprical evidence. *International Journal of Project Management*, 28(5), pp. 493-503.
- Cagliano, A. G. S. R. C., 2015. Choosing Project Risk Management Techniques. A theoretical framework. *Journal of Risk Research*, 18(2), pp. 232-248.
- Chapman, R., 2001. The Controlling Influences on Effective Risk Identification and Assessment for Construction Design Management. *International Journal of Project Management* , 19(3), pp. 147-160.
- Christine Petrovists, C. S. a. A. S., 2009. *The Causes and Consequences of Internal Control Problems in Non-Profit Organizations*. New York: New York University Stern School of Business and Stephen M. Ross School of Business.
- Clark, J., 2000. *Civil Society, NGOs, and Development in Ethiopia; A snapshot view*. Washington USA., The International Bank of Reconstruction and Development.
- Clark, J., 2000. *Civil Society, NGOs, and Development in Ethiopia; A snapshot view..* Washington USA.: The International Bank of Reconstruction and Development.
- Cook, R., 1977. Detection of influential observations in linear regression. *Technometrics*, Volume 18, pp. 15-18.
- Didraga, O., 2013. The role and the effects of risk management in IT projects success.. *Informatica Economica* 17(1)., pp. 86-98.
- Dooley, L. L. G. a. O. S. D., 2005. Multiple Project Management: a modern compitative necessity.. *Journal of Manufacturing Technology Management*, 16(5), pp. 466-482.

- Doyel, J. W. G. a. S. M. V., 2007. Determinants of weaknesses in internal control over financial reporting.. *Journal of Accounting and Economics* 44 (1-2), pp. 193-223..
- Drennam., L. M. A. S. A., 2014. *Risk and Crisis Management in the Public Sector*. London and New York: Routledge Taylor & Francis Group.
- Edwards, P. J. a. B. P. A., 2005. *Risk Management in Project Organizations*. Oxford: Butterworth-Heinemann.
- Elkington, P. a. S. C., 2002. *Managing project risks: a case studies from the utilities sector*. s.l.: International Journal of Project Management, 20(1), 49-57..
- Getachew Aberra, 2015. *Foreign NGOs Project Grant Management: An Assessment of its Effectiveness and Practices with Special Reference to NGOs Operating in Hawassa City/ SNNPR, Ethiopia*. Hawassa, Ethiopia: Unpublished MSC Thesis, Ismrc international publications (pvt) Ethiopia, .
- Hailu, T., 2016. *The Effectiveness of Project Management Processes on Performance of Constructon Projects: Case Study Analysis in Selecetd Companies in Addis Ababa*, s.l.: Scientific & Academic Publishing; <http://journal.sapub.org/mn>.
- Hillson, D., 2003. *Effective Opportunity Management for Projects: Exploiting Positive Risks*.. Boca Raton, US: Taylor & Francis.
- Hillson, D., 2007. *Understanding risk exposure using multiple hierarchies*. Budapest Hungary, PMI Global Congress 2007 EMEA.
- Hillson, D., 2009. *Managing Risk in Projects*. Franham, UK: Gower.
- Hillson, D., 2014. *How to Manage Risks. Global Congress Proceedings*. Phonix, Arizona, USA., Project Management Institute (PMI) .
- Hilson, D., 2014. Managing Overall Project Risk. *PMI Global Congress Proceedings*, Volume 8, p. 1.
- Hulett, D., 2011. *Integrated Cost-Schedule Risk Analysis*. Farnham, UK: Gower.
- ISO31000, 2009. *Risk management—Guidelines on principles and implementation of risk management*. Geneva, Switzerland: International Organization for Standardization.
- Jeffrey, P., 1987. *Critical Success Factors in Effective Project Implementation*.. s.l.:University of Pittsburgh's Joseph M. Katz.
- Kinyua., E. O. K. D. M., 2015. Effect of Risk Management Strategies on Project Performance of Small and Medium Information Communication Technology Enterprises in Nairobi,

- Kenya. *International Journal of Economics, Commerce and Management*, 111(2), pp. 1-30.
- Kishk, M., 2008. *The Impact of Effective Risk Management on Project Success*. Cardiff, UK., Association of Researchers in Construction Management, pp. 799-808.
- Kishk, M. a. U. C., 2008. The Impact of Effective Risk Management on Project Success. *24th Annual ARCOM Conference, 1-3 September 2008, Cardiff, UK. Association of Researchers in Construction Management, 799-808.*, p. 1.
- Kwak Y, H., 2001. *Risk Management in International Development Projects*. Nashville, USA, Proceedings of the 32nd Project Management Institute Annual Seminars & Symposium (PMI 2001).
- Larman, C., 2004. *Agile and Iterative Development: A Manager's Guide*. Boston: Addison Wesley..
- Mobey, A. a. P. D., 2002. *Risk Evaluation and its Importance to Project Implementation*. s.l.:Work Study, 51(4), 202-206.
- OIOS, 2011. *Effectiveness and efficiency of implementation project activities in UNHCR operations in Pakistan*, Geneva: Office of Internal Oversight Services.
- PMI, 2013. *A Guide to the Project Management Body of Knowledge (PMBOK guide)*. 5 ed. s.l.:Project Management Institute, Inc..
- PMI, P. M. I., 2009. *Practical Standard for Project Risk Management*. Newton Square, PA: Project Management Institute.
- PMI, P. M. I., 2013. *A Guide to Project Management Body of Knowledge (PMBOK Guide)*. 5TH ed. Newton Square: PA; Project Management Institute.
- Quangyen Tran and Yezhung Tian, 2., 2013. Organizational Structure: Influencing Factors and Impact on a Firm.. *American Journal of Industrial and Business Management*, p. 32.
- Roque, R. C. M., 2013. Understanding the Impact of Project Risk Management on Project Performance: An Empirical Study.. *Journal of Technology Management and Innovation*. (8)2, pp. pp 64-78.
- Sekaran, U. & B. R., 2010. *Research Methods for Business: A skill building approaches*. (5th Ed.). West Sussex, UK: John Wiley & Sons Ltd..
- Sekaran, U., 2003. *Research Methods for Business: A Skill Building Approach*. 4th ed. Illionis : John Wiley & Sons, Inc..

- Simon, P. H. ., a. K. N., 1997. *Project Risk Analysis and Management (PRAM) Guide*. High Wycombe, Bucks, UK, APM Groups. ISBN 0-9531590-0-0.
- Tian, Q. T. a. Y., 2013. *Organizational Structure: Influencing Factors and Impact on a Firm*. Washington, DC: American Journal of Industrial and Business Management.
- Tinnirello, P. C., 2000. *Best Practices Series-Project Management..* USA: Auerbach.: s.n.
- Ukaga, M. K. a. C., 2008. *The Impact of Effective Risk Management on Project Success..* Cardiff, UK, Association of Researchers in Construction Management.
- UNHCR, 2014. *Policy for Enterprise Risk Management in UNHCR*. Geneva: UNHCR/HCP/2014/7.
- UNHCR, 2018. *Risk Management in UNHCR, EC/69SC/CRP.18*, Geneva : Excutive Committee of the High Commissioner's Programme, Standing Committee 73rd Meeting, .
- UNHCR, 2019. *PPA Audit Statistics (2014-2018)*, Addis Ababa, Ethiopia: UNHCR .
- UNHCR, 2019. *Risk Management in UNHCR*. Geneva, UNHCR .
- Wang, X. & H. J., 2006. The relationships between key stakeholders' project performance and project success: Perceptions of Chinese construction supervising engineers.. *International journal of project management*, 24, 253., Volume 24, p. 253.
- Wissom, E., 2013. Risks Management: New Literature Review. *Polish Journal of Management*, p. 288.
- Yesuf Ahmed, 2015. *Budgeting and Budget Monitoring Practice in NGOs Operating in Ethiopia*. Addis Ababa: Unpublished MA Thesis, Addis Ababa University.

## **Annex I: Data Collection Tools**

**JIMMA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING**

**Impact of Risk Management Components on the Performance of Projects:  
A Study on Projects Financed by UNHCR in Ethiopia**

The main objective of this research is for the partial fulfilment of the requirements for the award of a Master's Degree in Project Management and Finance, Jimma University.

Therefore, all the information you provided will remain confidential. Hence, you are not required to mention your name or the organization you are working for.

Please, kindly attempt all the questions. Make a mark on the box  to indicate your response to the questions, and send me back through the following email address; [habtemark@gmail.com](mailto:habtemark@gmail.com)

**Thank you for your participation in this research!**  
Habtamu Gebremedhin.

**A. Background of the Respondents**

1. Age\_of the respondent: 20-30  31-40  41-50  51-60  >60

2. Sex\_of the respondent: Male  Female

3. Level of Education High School  Diploma  Degree  Masters  PhD

4. For how long have you been working in the current organization?

1-2 years  2-3years  3-4 years  4-5years  >5 years

5. What is your position in your current organization? \_\_\_\_\_

**B. Respondents Experience on managing UNHCR funded Projects**

6. Have you ever participated in UNHCR\_ project partnership agreements (PPAs) contract management processes in your current organization? Yes  No

7. Have you ever involved in the implementation of a project financed by UNHCR in your current organization? Yes  No

8. If your answer for the above question is Yes, how many PPAs have you managed during the past budget year?

9. If your answer for the above question is Yes, how long is the life of projects' period?



<3 months  3-6 months  6 months-1 year  1 year  >1year

10. What is the total budget amount of the above PPAs your organization made with UNHCR for the past one year?

11. Have you ever communicated with UNHCR staff to discuss on the project risks in which your current organization is implementing? Yes  No

**PART ONE: Assessment of Respondents' Perception on the Concept of Project Risk Management**

Which of the following best describing the concept of project risk management to you?		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
12	Risk is an event that only entails a threat which only negatively affects project performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	There is a positive relationship between project risk management components and project performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Use of Risk register enhances the effectiveness of risk monitoring.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Use of risk mitigation techniques enhance project effectiveness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Risk reporting process improves project success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART TWO: Assessment of Risk Identification**

17	Is Risk Identification process taken for analyzing risks on projects financed by UNHCR in your organization? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
18	If your answer for the above question is Yes/Partially, then is there the use of a qualitative risk assessment practice? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please rate the qualitative risk assessment techniques used by your organization;		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
19	Risk probability and Impact assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Risk Probability and Impact matrix analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Risk data quality assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Risk categorization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23	Risk urgency assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Expert Judgment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Is there a practice of Quantitative Risk Analysis in your organization? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please, rate your response on the prioritization techniques used for the below questions		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
26	Analytic Hierarchy Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Numerical assignment technique on the basis of requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Ranking technique	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Categorizing risk scale; e.g. low, medium, high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Risk Scores [ probability *Impact]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Is there a practice of using a Risk Register system to in your organization? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please, rate your response on the use of risk register system for the below risk management components		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
32	Risk Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Risk impact analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Risk prioritization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Risk monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Risk Mitigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Risk closure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part Three: Assessment of Risk Mitigation Measures employed**

38	Do you think that there were risk mitigation measures taken by your organization which aimed to respond to the project risks for the past one year?
----	---

	Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please, rate your response for the below questions;		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
39	Improving staff understanding on the concept of Risk Management specific to UNHCR Project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Briefing on the project scope to avoid scope ambiguity at early stage of the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Use of the project risk breakdown structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Use of the project risk management plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Establishing a risk management Committee to mitigate project risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Use of organizational risk management System to estimating risk severity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	Determining risk tolerance decisions by the Senior Management Team of the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	Recognizing risk events.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	Regularly updating the risk register to identify new risks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Escalating to the Senior Management Team for decision-making based on risk severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part Four: Assessment of Risk Monitoring and Control**

49	Do you think that the use of risk monitoring and control techniques used by your organization have improved performance of projects financed by UNHCR for the past one year?  Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please, rate the risk monitoring and control techniques used to by your organization to improve performance of projects financed by UNHCR for the past one year.		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
50	Cost Performance Index[CPI]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	Cost Variance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	Schedule Performance Index[SPI]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

53	Schedule Variance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54	Do you think that there were actions are taken by your organization to mitigate project risks on cost overrun specifically on projects financed by UNHCR for the past one year? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes/Partially, please, rate the risk monitoring and control techniques used by your organization to mitigate the risk of cost overrun of projects financed by UNHCR for the past one year.		Strongly Disagree	Disagree	NA	Agree	Strongly Agree
		1	2	3	4	5
55	Earned Value Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	Cost change management system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57	Budget Variance Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58	Project performance review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59	Financial Verification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part Five; Assessment on the Impact of Risk Management on Project Success**

60	Do you think that there is a positive relationship between risk management components employed by your organization and the performance of projects financed by UNHCR for the past one year? Yes, <input type="checkbox"/> No, <input type="checkbox"/> Partially <input type="checkbox"/>					
If Your answer for the above question is Yes./Partially; please, rate the impact of risk management components used by your organization on the performance of projects financed by UNHCR for the past one year.		Strongly Disagree	Disagree	Neu tral	Agree	Strongly Agree
		1	2	3	4	5
61	The implementation of project risk management ensured adherence to cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62	The implementation of project risk management ensured adherence to time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63	The implementation of project risk management ensured adherence to quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64	The implementation of project risk management enhanced stakeholders' satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

65	The implementation of project risk management enhanced employee satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
66	The implementation of project risk management brought commitment to project safety standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67	The implementation of project risk management solved cash management issues in project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
68	The implementation of project risk management enhanced compliance with design project goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
69	The implementation of project risk management provided benefits to organizational missions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70	The implementation of project risk management processes enhanced compliance to donor requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**General Remark**

What would you like to recommend regarding to the risk management components in your organization in general and specific to projects financed by UNHCR for future?

---



---



---

**Thank You**

**JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF ACCOUNTING**

**Key Informant Interview (KII) GUIDE**

The main objective of this research is to assess the **Impact of Risk Management Components on the Performance of Projects: A Study on Projects Financed by UNHCR in Ethiopia**; for the partial fulfilment of the requirements for the award of a Master’s Degree in Project Management and Finance, Jimma University.

In this regard, the information in this questionnaire will be used only for academic purpose. None of the responses will be used against the organizations, or the Employees. The information provided will be kept confidential and it will not be exposed to third party. Therefore, **NAME OF THE RESPONDENT IS NOT REQUIRED.**

Please, kindly attempt all questions, and return your response within a few days as much as

possible.

**Habtamu Gebremedhin**  
Email: [habtemark@gmail.com](mailto:habtemark@gmail.com)

**Thank You for participating in this research!**  
**January 2020**

**Addis Ababa, Ethiopia**

#### **A. Background of the Respondents**

**1** For how long have you been working in the current organization?

- 1.1 < 2 years
- 1.2 2-4 years
- 1.3 5-10 years
- 1.4 If other, please, explain \_\_\_\_\_

**2** What is your current position? \_\_\_\_\_

**3** For how long have your organization been an implementing partner (IP) of UNHCR on implementing projects financed by UNHCR?

- 3.1 <2 years
- 3.2 2-4 years
- 3.3 5-10 years
- 3.4 If other, please, explain \_\_\_\_\_

**4** Have you ever involved in the management, monitoring and control of projects financed by UNHCR?

- 4.1 Yes
- 4.2 No

**5** If your answer for the above question on #4 is Yes, on average how much time have you spent on the project management (% of total time)?

- 5.1 <25%
- 5.2 25%-50%
- 5.3 51%-75%
- 5.4 >75%
- 5.5 If other, please, explain \_\_\_\_\_

#### **B. Assessment of Respondents' Perception on the concept of Risk Management**

**6** What does risk management mean to you?

---

---

7. According to your experience what are the risks that negatively affect the performance of projects financed by UNHCR?

---

---

---

**C. Assessment of Risk Management Components on UNHCR funded projects**

8. Are the policies and procedures of project risk planning, analysis and management in place, is there any RM mechanism established to manage the risks associated with UNCHR projects?

8.1 Yes

8.2 Partially

8.3 No

9. If your answer for the above question #8 is YES, please, kindly answer the below questions;

9.1 What risk management method is used to identify project risk? What methods did you follow to forecast the risk? How did you identify project risks?

---

---

---

9.2 What method did you follow to analyze the risks, i.e. qualitative or quantitative?

---

---

---

10. What kind of risks did you identify during each of the different phases of the project? Were there any positive risks you faced during the project? What are the new risks emerged during the implementation phase?

---

---

---

11. How did you plan to mitigate/solve those identified risks?  
what is the mechanism established to mitigate the UNHCR project risks?

---

---

---

12. What is your plan to tackle any evolving uncertainty during the project?  
How do you monitor the risk?

---

---

---

**D. Assessment of Impact of Risk Management on Project Performance**

13. According to your evaluation what is the effect of the risk management components on the performance of projects financed by UNHCR during the study period? How would you rate it?

---

---

---

**E. General Remark**

15. What would you like to recommend regarding to enhance the risk management practices in your organization in general and specific to improve the performance of projects financed by UNHCR for future?

---

---

---

**Thank You**



Annex II. Correlations Matrix Risk Management Components and Project Performance																
		PER	COST	TIME	QLT	STK	SAF	CAS	GOL	MISS	DON	RASS	RANL	RPLAN	RMITG	RMON
PERFORMANCE_OF_PROJECTS	Pearson Correlation	1	.108	.099	.020	-.146	-.187	-.052	-.236*	-.239*	-.230*	.040	-.051	-.041	.011	.274*
	Sig. (2-tailed)		.332	.372	.860	.187	.091	.640	.031	.030	.036	.718	.646	.715	.918	.012
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
COST	Pearson Correlation	.108	1	.490**	.422**	.180	.380**	.124	.009	-.039	.024	.076	.212	.018	.109	.010
	Sig. (2-tailed)	.332		.000	.000	.104	.000	.264	.938	.727	.830	.495	.054	.871	.327	.926
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
TIME	Pearson Correlation	.099	.490**	1	.357**	.064	.087	.274*	.074	-.054	.027	-.122	.012	.134	-.019	-.039
	Sig. (2-tailed)	.372	.000		.001	.567	.434	.012	.506	.626	.808	.272	.913	.226	.865	.724
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
QUALITY_STANDARD	Pearson Correlation	.020	.422**	.357**	1	.245*	.269*	.265*	.172	.049	.017	-.046	.022	-.110	.048	-.021
	Sig. (2-tailed)	.860	.000	.001		.025	.014	.016	.121	.662	.878	.677	.841	.324	.667	.853
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
STAKEHOLDERS_SATISFACTION	Pearson Correlation	-.146	.180	.064	.245*	1	.220*	.407**	.335**	.436**	.380**	.062	.160	-.294**	.213	-.149
	Sig. (2-tailed)	.187	.104	.567	.025		.045	.000	.002	.000	.000	.576	.147	.007	.053	.178
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
PROJECT_SAFETY	Pearson Correlation	-.187	.380**	.087	.269*	.220*	1	.286**	.311**	.288**	.203	.034	.112	-.220*	.087	-.167
	Sig. (2-tailed)	.091	.000	.434	.014	.045		.009	.004	.008	.065	.761	.312	.045	.432	.132
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
CASHFLOW_MGMT	Pearson Correlation	-.052	.124	.274*	.265*	.407**	.286**	1	.602**	.588**	.447**	.090	-.005	-.128	.033	-.001
	Sig. (2-tailed)	.640	.264	.012	.016	.000	.009		.000	.000	.000	.418	.965	.247	.767	.995
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
COMPLIANCE_GOALS	Pearson Correlation	-.236*	.009	.074	.172	.335**	.311**	.602**	1	.727**	.540**	.072	.095	-.098	-.025	.024
	Sig. (2-tailed)	.031	.938	.506	.121	.002	.004	.000		.000	.000	.519	.394	.376	.823	.827
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
COMPLIANCE_MISSION	Pearson Correlation	-.239*	-.039	-.054	.049	.436**	.288**	.588**	.727**	1	.675**	.208	.080	-.136	.037	-.142
	Sig. (2-tailed)	.030	.727	.626	.662	.000	.008	.000	.000		.000	.060	.472	.219	.741	.200
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
COMPLIANCE_DONOR_REQUIREMENTS	Pearson Correlation	-.230*	.024	.027	.017	.380**	.203	.447**	.540**	.675**	1	.199	.067	.047	.042	-.054
	Sig. (2-tailed)	.036	.830	.808	.878	.000	.065	.000	.000	.000		.071	.547	.674	.707	.625
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
RISK_ASSESSMENT	Pearson Correlation	.040	.076	-.122	-.046	.062	.034	.090	.072	.208	.199	1	-.080	.100	.111	-.123
	Sig. (2-tailed)	.718	.495	.272	.677	.576	.761	.418	.519	.060	.071		.473	.368	.316	.267
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
RISK_ANALYSIS	Pearson Correlation	-.051	.212	.012	.022	.160	.112	-.005	.095	.080	.067	-.080	1	.098	.277*	.071
	Sig. (2-tailed)	.646	.054	.913	.841	.147	.312	.965	.394	.472	.547	.473		.380	.011	.523
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
RISK_PLANNING_USE_REGISTER_SYSTEM	Pearson Correlation	-.041	.018	.134	-.110	-.294**	-.220*	-.128	-.098	-.136	.047	.100	.098	1	-.218*	-.036
	Sig. (2-tailed)	.715	.871	.226	.324	.007	.045	.247	.376	.219	.674	.368	.380		.047	.745
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
RISK_MITIGATION	Pearson Correlation	.011	.109	-.019	.048	.213	.087	.033	-.025	.037	.042	.111	.277*	-.218*	1	.081
	Sig. (2-tailed)	.918	.327	.865	.667	.053	.432	.767	.823	.741	.707	.316	.011	.047		.469
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
RISK_MONITORING_AND_CONTROL	Pearson Correlation	.274*	.010	-.039	-.021	-.149	-.167	-.001	.024	-.142	-.054	-.123	.071	-.036	.081	1
	Sig. (2-tailed)	.012	.926	.724	.853	.178	.132	.995	.827	.200	.625	.267	.523	.745	.469	
	N	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*.. Correlation is significant at the 0.01 level (2-tailed).