RISK MANAGEMENT AND CENTRE FOR RESEARCH IN ENERGY AND ENERGY CONSERVATION ORGANISATIONAL PERFORMANCE IN MAKERERE UNIVERSITY IN UGANDA

BY

MADIINAH NAMAKULA

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DECLARATION

I, MADIINAH NAMAKULA, declare that this research report is my own original work

and it has never been presented for any award at any institution of higher learning.

Signature: ………………………. Date: ………………………

MADIINAH NAMAKULA

14/MMS/PPM/34/121

APPROVAL

This is to certify that this dissertation has been submitted for examination with our approval as Uganda Management Institute supervisors.

Dr. Edgar K. Mwesigye

Signature: ………………………   Date: …………………………..

Mrs. Oluka Prossy Nagitta

Signature: ………………………   Date: …………………………..

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DEDICATION

I would like to dedicate this research work to my family who are my pillars and sources of great inspiration. My Son Isaack, my sisters, Lukaya and Saphinah for their continuous prayers for God's wisdom upon me to be the best I can.

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ACRONYMS/ABBREVIATION

CREEC	Centre for Research in Energy and Energy Conservation
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute

ABSTRACT

The purpose of the study was meant to establish the relationship between risk management and organisational performance at CREEC. CREEC stand for Centre for Research Energy and Energy Conservation. The study was guided by three objectives: for instance to establish the relationship between risk identification, risk analysis, risk evaluation and organizational performance at CREEC.

The study employed a cross-sectional survey design supported by both qualitative and quantitative approaches. The target population was 65 and the sample size was 53. Data was analysed using SPSS version 21 and the study objectives /hypotheses were tested using Pearson Correlation co-efficient index.

The findings from the fields revealed there was a strong positive significant relationship between risk identification, risk analysis, risk evaluation and organizational performance at CREEC. From the findings of the study, it was observed that risk identification, risk analysis and risk evaluation were significantly related to organizational performance of CREEC.

Therefore I recommend that CREEC leaders should put up an observation team, continuously hold meetings, regular reviews and assessment. The policy statement of CREEC through risk monitoring, controls and audits should be clearly emphasized to ensure compliance with performance goals.

CHAPTER ONE: INTRODUCTION

1.1   Introduction

Organizational Performance is extremely important in transforming any society. In organizations like Centre for Research in Energy and Energy Conservation (CREEC) this is only being realized when profits are achieved, services provided on time and of a high quality. This chapter presents the introduction, background of the study, problem statement, specific objectives, research questions, hypotheses, conceptual framework, significances, justification, and scope of the study.

1.2   Background of the Study

The study background was based on the historical, theoretical, conceptual and contextual perspective of the study.

1.2.1 Historical background

The concept of organizational performance has strong links with the earlier management thoughts. Mullins (2010) argues that during the classical and scientific management period's people were concerned with how best one should perform in an organisation. In this regard, Armstrong (2009) demonstrated that to realize high organisational performance people had to work as machines. This view changed in the behaviorist period where focus was more shifted to considering employees needs for one to perform better. However, these were theoretical assertions while the proposed study was empirical in CREEC.

Studies on relationship between risk management and organizational performance from other scholars like Junior and Carvalh (2013), considered the impact of risk management on project performance. It revealed that risk management techniques significantly impact on project success. Meanwhile, Sallen and Abideen (2012) carried out research on risk management in Pakistan. The study revealed that over 90% of the study respondents responded positively that effective risk management was important in improving performance of the organization. However, this was from the context of Pakistan. Secondly, it was a descriptive study while the proposed study will apply correlation analysis.

Further Channar, Abbasi and Maheshwari (2015) in another study about risk management as a tool for enhancing organizational performance, findings revealed that risk management had an insignificant relationship with organizational performance. It had significant positive relationship with financial performance. Kakobe (2010) in a study above risk management techniques and financial performance of insurance companies in Ethiopia showed that risk management and financial performance are not correlated. However, this was from the Insurance Company of Ethiopia different from CREEC.

In Nigeria, Adevsi, Oluvafeni, Israel, Simean and Olavale (2013) in a study about Risk Management and financial performance of Banks in Nigeria revealed that risk management had a positive significant relationship with financial performance of Banks in Nigeria. However, all these studies were from Banks different from the case of CREEC.

Mwangi (2010) indicated proof that, risk management and the other practices are reflected considerably important to the operations and financial performance of the commercial banking institution. The study by Mwangi was about Commercial banks in Kenya, whose situation is quite different from the focus of this study. Gitau (2015) also recognized risk management as an important exercise in order to achieve better performance of construction projects. Mutesi (2011) ,argued that, there is a positive significant relationship between risk management and financial performance. The research was based on financial performance of commercial banks in Uganda and its findings may not relate quite well with an organization like CREEK. Consequently, the study focused on risk identification, analysis and evaluation and how these related with organisational performance of CREEC.

1.2.2   Theoretical background of the Study

The study was based on the utility theory by Bernoulli (1938). This theory stated that a decision made must make an alternative strategy under conditions of risk, particularly by assessing rationally and intuitively. The theory also assumed that, the level of certainty to take place using a basis of this information above similar past events of one's skill.

Wanga, Lin and Huang (2010), suggest that the combination between probability of risk factor and concepts of Utility Theory, propose a function called Utility of risk factor. This factor basically estimated the performance of CREEC.

Utility theory sought to explain the individuals' observed behavior and choices. It suggested that actors attempt to optimize the expected value of individual preferences defined as utility.

It was therefore analyzed that the incorporation of individual preferences into supply risk assessment can support the measurement of supply risk in CREEC. The theory provided a practical context for the evaluation of other choices made by CREEC. It further assumed that, any choice is that being made basing of utility theory according the greatest choice was the one that provided the highest value satisfaction to the decision maker of CREEC. Hence, Utility Theory was used to compare relationships between risk management and organizational performance.

Basing on the theory, it was theorized in the study that the probability or certainty of CREEC to perform as expected was determined by the risk management. If risk management strategy in terms or risk identification, risk analysis, risk transfer, risk control and risk evaluations is effective, there will be a possibility of greater performance of CREEC.

1.2.3 Conceptual background

The independent variable in this study was risk management defined by Ping and Muthuveloe (2015) as the ability or process of the categorizing, key risks, gaining regular reasonable functioning, risk procedures, closing which risk to moderate and which to increase by what means and creating actions to monitor the resulting risk position. In this research, risk management in CREEC referred to risk identification mainly involving observation and meetings, risk analysis involving assessment and performance and finally risk evaluation involving monitoring and control. According to According to (ISO 31000, 2009), risk identification is a process that involves finding, recognizing and describing the risks that could affect the achievements of an organization's objectives. Merram Webster (2006), defines risk

identification as a process of listing potential project risks and their characteristics, In risk identification, the researcher will examine the situation through observation and meetings to classify areas of potential risk that are likely to affect CREEC.   All possible risk which may significantly affect the project success are identified in this phase, recognized and appreciated as based upon which measures are taken. In this study risk identification involved observation and meetings.

Risk analysis is defined by Gove (1993) as a method used to classify and assess factors that may jeopardize success of a project or achieving its goals. Risk analysis is the process of assessing risk that has been identified and determine its consequences and its likelihood of occurrence. In the study risk analysis involved assessment and reviewing. Therefore CREEC had to carry out assessment and reviewing to decide what techniques or strategies to use for each specific risk measured and taking into account the likelihood and magnitude of those risks.

Risk evaluation refers to a process of assessing possibilities of risk to occur M. Webster (2006). Risk evaluation is process of comparing the marks of risk analysis with the principles of risk to decide whether the risk or its magnitudes are satisfactory. The study of risk evaluation involved monitoring, control and audit. The purpose of the risk evaluation is to decide based on the results of CREEC risk analysis, which risks and prospects require a response and what CREEC recommended response will use to manage this risk: accept or ignore, avoid and exploit, mitigate or enhance, or share. CREEC had put in place monitoring procedures for the permanent evaluation of the risk management program, carry out internal and external audits to receive feedback and identify opportunities for improvement.

Hockerts (1999) defines sustainability as a state of a business in which it encounters the needs of its stakeholders without compromising its ability also to meet their needs in the upcoming. Colbert and Kurucz (2007) identify the colloquial definition of sustainability as being keeping the business going whilst another frequently used term in this context refers to the "future proofing" of organizations. The Charter of Sustainability Committee generated by the Board of Directors at Ford defines sustainability as "the ability to meet the needs of present customers while taking into account the needs of future generations" (Ford, 2012). This study involved cost, time and quality.

The dependent variable in the study was organizational performance defined by Shahzard Luqman, Khan and Shabbir (2012) as a degree of accomplishment of the mission at work place that builds up an employee's job. Nair, Picohit and Chovindhary (2014) also defined as the return on equity. In the study, organizational performance at CREEC meant high profit margins, timeliness or service delivery and quality or services offered.

1.2.4 Contextual Background

The research carried at CREEC was critically important in the realization of steady energy priors in the country. CREEC reports from 2013-2017 have indicated that there were serious challenges and loses registered in the provision of services. For instance losses were registered at 55%, 65% and 55% in the financial year 2012-2013. 2013-2014, 2014-2015 and 2015-2016 a problem that is likely to affect the provision of solar energy negatively to the detriment of economic development. Despite the existence of several factors that might be responsible for

this problem, CREEC reports 2012-2016 had mentioned several factors including poor risk management which warranted need to undertake the study to establish how risk management relates with organizational performance at CREEC.

1.3. Statement of the problem

High performance of CREEC project in Makerere University was critically important in the realization of study energy provision in the country. This was only realized when there were high profits registered and with timely provision of quality services. Alternatively of CREEC reports from 2012 -2016 have indicated that there were serious challenges and loses registered in provision of services. For instance losses were registered at 55%, 65% and 55% in the financial year 2012-2016 to affect the provision of solar energy negatively to the detriment of economic development. Several factors were responsible for this problem. However CREEC Report had cited on poor risk as one of them. This warranted need to undertake the study to establish how risk management related with organizational performance at CREEC.

1.4. Purpose of the study

The purpose of the research was to establish the relationship between risk management and organizational performance in CREEC.

1.5. Objectives of the study

(i)   To establish the relationship between risk identification and organisational performance in CREEC

(ii)   To establish the relationship between risk analysis and organisational performance in CREEC

(iii)   To find out the relationship between risk evaluation and organisational performance in CREEC

1.6. Study questions

(i)   What is the relationship between risk identification and organisational performance in CREEC?

(ii)   What is the relationship between risk analysis and organisational performance in CREEC?

(iii)   What is the relationship between risk evaluation and organisational performance in CREEC

1.7. Hypotheses of the Research

(i)   Risk identification had a positive significant relationship with organisational performance in CREEC.

(ii)   Risk analysis had a positive significant relationship with organizational performance in CREEC.

(iii)   There was a positive significant relationship between risk evaluation and organizational performance in CREEC.

1.8. Conceptual Framework

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┌─────────────────────────┐              ┌─────────────────────────┐
│    Risk Management       │              │                         │
│                          │              │  Organizational         │
│  Risk identification     │              │  Performance            │
│        Observation       │              │                         │
│        Meetings          │    ─────▶    │  Cost                   │
│                          │              │                         │
│  Risk analysis           │              │       • Sustain         │
│        Assessment        │              │         ability         │
│        Reviews           │              │                         │
│                          │              │  Quality                │
└─────────────────────────┘              └─────────────────────────┘
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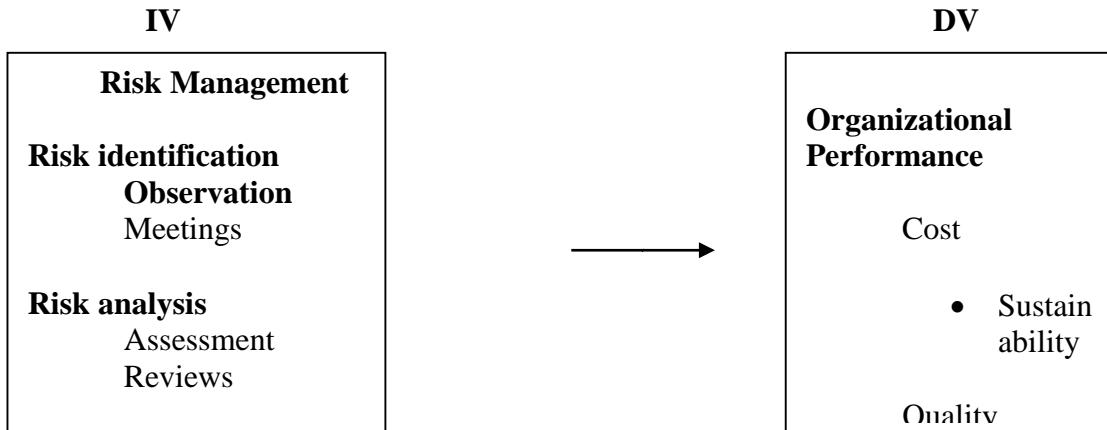
Source: Adopted from PMBOK (2008)

Figure 1:   A conceptual framework

Figure 1 shows that risk management was operationalized into risk identification involving observation and meetings; Risk analysis involving assessment and review; and Risk evaluation involving risk monitoring and control. These have a direct relationship on organizational performance in the way that once risk management in terms of identification, risk analysis and risk evaluation, are effective organizational performance will be better.

Project Risk Management referred to Identification, Analysis and Evaluation of risk management. Project/Organizational Performance was referred to Quality, Costs and Timeliness. Identification was applied to observation and meetings in the project. In this process it increased costs, produce good quality work and time bound. Analysis was applied to assessment and performance in the project. This process produced quality work that was being done on a specified period of time. Evaluation was always going with monitoring and control.

Evaluation and monitoring controls the risk which might affect the production. Risk management helped in decision making, setting policies, organizational politics and authorities. This increased the costs; produce quality work on speculated period of time.

1.9. Importance of the Research

The Research findings will help to the management of CREEC to appreciate how to carry out risk management in their project in order to reduce losses and rise productivity. The study might protect the project from financial, social, cultural, environmental and other related risks. Continuous risk management may ensure that high priority risks are aggressively managed and that all risks are cost-effectively managed throughout the project.

The research will act as a source of knowledge for other researchers who intend to carry out further research on the effect of risk management in Project Planning Phase.

The research will enable researcher to fulfill one of the requirements for the award of the Master's degree in Project Planning and Management.

1.10. Justification

High performance of Center for Research Energy Conservation in the areas of electrification house hold energy provision, energy efficiency among others in equivocally essential in propelling national development, the urgency of the study would be meant to ensure that risk are effectively managed for high organisation performance of CREEC in an economic perspective. The findings of the study would help to improve on the way risks are managed for high productivity.

1.11. Scope of the research

This section involved the geographical, content and time scope.

1.11.1 Geographical scope of research

Geographically, the research was carried at CREEC in Makerere University in the North Eastern Part of Kampala City Centre in a distance of 2 miles away from Kampala City Centre. This area was preferred for the study because it is facing challenges related to poor performance.

1.11.2 Content Scope of the research

The study content scope involved risk management with risk identification, risk analysis and risk evaluation. These were related with organizational performance which involved cost, quality and time.

1.11.3 Time Scope

The study covered the period between 2015 and 2017, the implementation period for the Presidential Initiative project under CREEC. This period concurs with the period when CREEC was officially opened up. It also rhymes with the time when the problem of poor performance was identified in this organisation.

1.12. Operational definitions

Organization; It meant a group of people in CREEC, with a common agenda

Performance: It meant accumulated results of one's work processes, including, cost, quality and time.

Risk: A risk in this study meant any threat in investing money in any project. Risks in this study involved risks associated with CREEC projects, like investing money in rural electrification injuries, losses and other challenges that are likely to face in the project.

Management: management in this study meant the act of working with and through other people to achieve ends. It involved risk identification, analysis and evaluation.

Risk management: Risk management in this study meant strategies undertaken to effectively manage risk.

Risk identification: Risk identification in this study meant ways of isolating risks. In this it involved risk identifications like observations and meetings.

Risk analysis: Risk analysis entailed a process of understanding the nature or risk; in this study this entailed assessment and reviews.

Risk Evaluation: This involved assessing the level or risks against the risk criteria. Risk evaluation in this study involved monitoring, control and evaluation.

1.12   Summary of chapter one

This chapter consists of Introduction, background, historical, theoretical, conceptual, contextual, problem statement of the study, conceptual framework, significance, justification and operation of key terms. The next chapter gave in-depth review in the theoretical and relevant literature to the problem investigated in the study of risk management in the Presidential Initiative project under CREEC.

CHPATERTWO: LITERATURE REVIEW

2.1 Introduction

This chapter states what other researchers have written on the topic under study. It includes theoretical review and conceptual frameworks and the views of other scholars presented in line with the objectives of the research. This review followed the relationship between Risk Identification, Risk Analysis, Risk Evaluation and organizational performance that are related to the subject under study to help the researcher in the process of extending knowledge beyond what is already available. It aimed at helping the researcher in understanding how the subject of management has been advanced before by other intellectuals.

2.2 Risk Identification and Organisational Performance

Risk identification refers to a process of determining which risks affects a project and documenting features of those risks (PMI, 2010). Pritchard (2010) confirms that, risk identification is organized through methods to discovering real risks associated with a project so that one can come up with appropriate intervention to moderate the effects of the known risks. Ping and Muthuvelo (2015) argued that if risks are managed effectively especially by identifying carefully, it enables obtaining consistent, understandable, operational risk measures which increases the firm's ability to achieve intended objectives. However this was a theoretical observation, while this was an empirical study on how risk identification impacts on organizational performance. Bakker, Boonstra, Wortmann (2012) emphasized that risk identification is the most influential process in terms of risk management and that once handled effectively, it leads to high performance.

In addition Damokos, Nyeiki, Memethui and Hatvani (2015) observed that risk identification including information about discrepancies, their main reason and they potential consequences helps to realize posture and significant performance outcomes. However it was in the context of the western world where this study was carried out. This study examined whether a similar perspective exits in Uganda.

Slightly different from the above, Severian (2014) stressed that identifying risks using a holistic approach is not suitable. Such an approach is a concern productive and does not stimulate creative thinking which may not hop to realize high performance. Hence the study will be established to examine whether CREEC project undergoes through the same experience. In an empirical study carryout out by Atff, Zakuan, Tajudin and Ahmed (2014), it was revealed that risk identification was implemented effectively leading to high performance and higher education institutions. In this study, it was ascertained that similar circumstances exists in CREEC project.

Channer et al (2015) identified that different methods are used to identify possible risks which helps to solve critical risks as much as possible. This helps to enhance performance in one way or the other. On the other hand Nair, Purohit and Choundhary (2014) in a study about risk management on performance revealed that risk identification influences organizational performance in a positive direction. It was found out that once risks are identified they are worked on immediately resulting into high performance.

Kakobe and Gemechu (2016) showed that risk identification helps to anlayse risks at the implementation stage. Through this strategy risks that would be deadly to the survival of the institution are solved. However this was not an empirical study.

2.3   Risk analysis and organizational performance

Risk analysis refers to a process that helps to identify and manage potential problems caused by either natural or human beings, causing adversed effects (Gove 1993). Risk analysis is an essential managerial needed to find existing and possible dangers, liabilities that compromise the performance in CREEC.

Additionally, Damokos, et al (2015) stress that risk management process through analysis risk helps to eliminate problems that affect the project leading to proper performance of the firm. Hence risk analysis helps to provide information to business owners to help make decisions regarding practices leading to high performance. However in the previous review it was not indicated whether Pearson's Correlation Co-efficient method was applied. In addition, Damokos, et al (2015) argue that in the course of risk analysis, necessarily relevant and reliable information is collected and mapped with present needs. Once this is done compliance with performance needs is possible. However this was a theoretical view from a developed world while the current study was in Uganda (CREEC Project) which is a developing world.

Further, Nair Purohit and Choudhary (2014) noted that risk analysis especially through cost benefit analysis plays an important role in determining high profit margins. This is mainly done through several qualitative and quantitative techniques. They further noted that risk analysis

through establishing the cost benefit analysis plays an important role in improving business performance. An active management is required for analyzing risks and this should begin as early as possible through identifying, prioritizing and during risk selection stage. In the line with above study risk analysis involved qualitative and quantitative techniques but form the context of CREEC project.

Ariif, Zakwan and Tajudin (2014) revealed that, risk analysis was implemented to the benefit of the organization in terms of enjoying high performance. However this study was the general context of higher education while the proposed study was in CREEC as energy from Makerere University.

Kakobe (2016) in a study about risk management techniques' and financial performance of insurance companies revealed that identifying risks has a potential of significantly improving on performance of insurance companies. However the proposed study dealt with CREEC an energy sector not insurance company.

2.4   Risk evaluation and organizational performance

Risk evaluation refers to a process used to link projected risk against the given risk standards so as to define implication of the risk. Risk evaluation decides which risk is to be treated or accepted and which action plan is better to implement. Saleen and Abdeen (2012) stated that risk evaluation is suitable option in drawing a mitigation plan to various risks which can enhance performance. They further identified that risk analysis provides a basis for risk evaluation in which it is decided that which risk is treated and which action is better to

implement. Evaluation bases on the number of risks which consequently yields better performance In line with the above, Damokos et al. (2015) stated that risk control involves following bench marks designed through regular audits in the way doing standards and guidelines of international organizations and projects on various ways of controlling risk are enforced leading to high performance of such a firm.

Further, Ridha and Alnaji (2015) stated that risk assessment is the basis for building plans in the face of danger. The aim of this process is control produce risk from occurring. This assessment is of great importance to the organisations and entrepreneurs in terms of making high profits. However, their study was a descriptive analysis while the current study was correlational.

Nair et al., (2014) argued out that risk monitoring as a routine reporting management process is essentially important in realizing project goals. This is because as a continuous evaluation tool, feedback on the risk management process and performance is possible. Channer, Abbasi and Maheshwari (2016) in a study about management as a tool enhancing organizational performance revealed that risk management especially through evaluation did not significantly relate with organizational performance in conventional and Islamic Banks. However the reviewed study was in the banking sector and applied different theories from that of the utility theory this study applied.

2.5 Summary of Literature

From all the above Literature Review, it was ascertained that the empirical and theoretical studies were:- PMI, 2010; Pritchard 2010; Ping and Muthuvelo, 2015; Bakker et al; Damokas et al; Ariff et al; Severian, 2014; Nair and Choudhary, 2014; Saleen and Abdeen 2012 and Ridha and Alnaji 2015. This study was empirical in the context of CREEC using Pearson's correlation co-efficient method which was not applied in the preview reviews. Further, most of these studies showed a straight positive relationship between risk management and organizational performance.

CHAPTER THREE: METHODOLOGY

3.1   Introduction

This chapter describes methods and techniques used to collect data and investigate study problem. They include research design, research population, sample size and selection, sampling methods and technique, methods of data collection , instruments, data quality control, procedure of data collection, data analysis and variable measurement.

3.2   Study design

The research used a cross-sectional survey design relating to risk management on organizational performance. It was a cross-sectional since it involved collection of data from a big number of respondents from a bit purports at once without relatively going back for data collection. According to Amin (2005), quantitative designs are strategies for carrying out research oriented towards quantification and are practical in order to describe present conditions or to examine relationships, including source and result relationships. As for Sekaran (2003), Qualitative approaches involve an in depth probe and application of subjectively interpreted data in terms of approach. In quantitative, data collected was expressed in numerical terms, meanwhile a qualitative approach was also used to get detailed views and opinions of respondents.

3.3   Research population

The Research populace involved a number of over 52 staff and 10 administrative staff 3 Board members of CREEC. In total the study target populations were 65 CREEC members. CREEC staffs were involved in the study since they were the one whose service determines performance of CREEC. CREEC administrators were involved in the study because these were responsible

for managing staff to realize organizational performance and Board members were the ones who steer the organization towards a maintainable future by accepting sound, ethical, legal governance and financial management policies, as well as by making sure the not-for-profit has adequate resources to advance its task.

3.4 Sample size and sample selection

The study sample size was 40 staff and 10 administrators and 3 Board members from CREEC. In total the study sample size was 53 respondents (Krejcie & Morgan ,1970).

determination table.

Table 1: Target population sample size and sampling technique

Category	Target population	Sample population	Sampling technique
CREEC staff	52	40	Simple random sapling
Board members	03	03	Purposive
Top administrators	10	10	Purposive
TOTAL	65	53	

Source: Primary data

Table 1:   Shows that 10 administrators CREEC staff, 3 Board members and 40 CREEC staff were determined basing on Krejcie and Morgan (1970). In total the study sample size was 53 respondents.

3.5 Sampling technique and procedures

The staff of Centre for Research Energy and Energy Conservation were sampled using simple random sampling. This was done by choosing 40 CREEC staff available at CREEC. 10 Administrative staff and 3 Board Members of CREEC were sampled purposively since they hold confidential information related with risk management and CREEC performance.

3.6 Methods of Data collection

3.6.1 Questionnaire Survey

A questionnaire survey was for only staff in CREEC. This method was used because according to Croswell (2009) it collects data from a big number of respondents once. Further is works well on an informed and literate group.

3.6.2 An Interview

Interviews were the second data collection instrument. These were mainly for Administrative and Board of Directors. Interviews used to request information from respondents for details.

3.7 Instruments for data collection

The study involved three data collection instruments for instance a self-administered questionnaire, interview guide and document guide.

3.7.1 Self-administered questionnaires

A self-administered questionnaire instrument was used. It had section A on respondents bio data, section B on the independent variable risk management with performance on risk identification, B on risk analysis and B on risk evaluation. Section C was on organizational

performance. All items were done on Likert scaled (closed ended). This instrument was used by cause they respondents were literate and provided responses readily without external interference. The self-administered questionnaire was used since it helped someone to distribute the instruments to a big number of respondents, thereby minimizing time and financial constraints. It was in this regard that the questionnaire is found to be cheaper in terms in terms of administration. Further the self administered questionnaires allowed study respondents give information at ease without external interference.

3.7.2   Interview guide

An interview guide was the second data collection instrument. At least each objective of the study had two qualitative open ended items. The interview guide was used in the study to supplement on data collected using a questionnaire.

3.7.3   Document guide

A document review guide was the third data collection instrument. Documents like arrival performance reports, Journals and edited books were reviewed. A document review guide was used to allow triangulation of data. It was used since it allowed individuals to brain storm and debate on issues at hand ending up getting valuable information

3.8   Quality of data collection instrument

This section dealt with validity and reliably of instruments.

3.8.1 Validity of instruments

Experts were offered with instrument to assess whether items are relevant or irrelevant. After a content validity index was establishing using a formula below:-

CVI = Items related relevant = 0.7

          Total number of terms

CVI = 34/38

CVI = 0.89

The questionnaire was considered valid since the competed validity value was greater than 0.7.

3.8.2   Instruments Reliability

Reliability of instruments was established using Cronbach Alpha co-efficient method. At least three questionnaires were pilot tested with CREEC staff. Data was entered into computer using SPSS Version. Reliability of instruments was finally approved when the computer reliability value was greater than 0.7 the instrument was considered reliable and worthy to give consistent results. Hence, the rest of the questionnaires were administered to the study respondents for data collection.

Table 2: Reliability values

Variables	Constricts	No of questions	Cronbach Alpha Values
Dependent Organisational Performance	-	1	0.787
Independent Risk Management	Risk identification	09	0.891
	Risk analysis	09	0.712
	Risk evaluation	09	0.843

Source: Primary data

Table 2 shows that Alpha values were greater than 0.7 implying that it was reliable.

3.9 Data collection Procedure

After development of a proposal, validity and reliability of instruments were established. This was accompanied by acquisition of an introductory letter from UMI research department to introduce the researcher before respondents. This was followed by selection of research assistants who helped give out instrument to respondents and collecting them back. Meanwhile the researcher conducted interviews. Questionnaires were collected, edited and data entered into SPPS ready for analysis.

3.10 Measurements of variables

Both nominal and ordinal scales of variable measurement were used. The nominal scale was mainly applied for the socio-demographic characteristic of the respondents. The ordinal scale along with the Likert scale of 1-5, where 1= strongly disagree, 2 disagree, 3, neutral 4, agree and 5 – strongly agree were used.

3.11 Data analysis

Quantitative data was edited, coded, entered and presenting using SPPS version 21. At descriptive level frequencies, percentages means and standard deviations were used. While at bilateral level each of the risk management sub variable were related with organizational performance using Pearson's Correlation Co-efficient index. At multi-variable level, regression analysis method was applied. On the other hand, qualitative data was sorted and organised into themes, in accordance with the study objectives.

3.12 Ethical considerations

Before collecting data an introductory letter was sought from Uganda Management institute to introduce the researcher before the study respondents. Confidentiality was ensured to all information given by respondents in the study.

CHAPTER FOUR: PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The results are presented according to the specific objectives of the research. This chapter also includes a response rate and background characteristics of the study respondents.

4.1 Response rate

Out of a sample of 53 respondents who were targeted for the study, 33 managed to fully participate. Of these, 26 filled in the questionnaires while 07 participated in the face-to-face interviews. Overall, the study response rate was 62.3%. In accordance with Amin's argument that a response rate of 50% or more is considered sufficient, the registered response rate of 62.3% was considered adequate.

4.2 Background information about the respondents

In this section, respondents' background data showing their distribution by sex, age, marital status, level of qualification and experience, as given by the respondents. The background information about respondents is presented to give a clear picture of the nature of the people who participated in the research.

4.2.1   Age respondents

The study established the age categories of the respondents to identify the average age range of employees in CREE. The respondents to indicate their age by ticking on the boxes provided in the questionnaire. Table 3 shows the distribution of the respondents by age.

Table 3:   Age of respondents

Age groups	Frequency	Percentage
18-25 years	6	23.1
26-30 years	12	46.2
30-40 years	04	15.4
Above 40 years	04	15.4
Total	**26**	**100.0**

Source: Field survey, 2017

Results in table 3 show that, majority of the respondents 12(46.2%) were in age 26-30 years, followed by those in the age group 18-25 years (23.1%) while lest of the respondents 15.4% were from each of the age groups 30-40 and above . These findings revealed that employees at CREEC were in their most productive age group and therefore expected to have the mental and physical energy for enhanced organizational performance.

4.2.2   Respondents' Gender

In this study the respondents sampled were expected to comprise both male and female staffs. As such, the study required the respondents to indicate their sex by ticking on the boxes provided in the questionnaire. Table 4 shows the distribution of the respondents by sex.

Table 4:   Gender respondents

Gender	Frequency	Percentage
Male	16	61.5
Female	10	38.5
Total	**26**	**100.0**

Source: Field survey, 2017

According to Table 4, most of the study respondents 16(61.5%) were male as opposed to 10(38.5%) who were female. This implied that most o the employees at CREEC are male which brings out the idea that traditional barriers in the distribution of educational benefits may still be in the favour of male.

4.2.3 Respondents marital status

The study presents the findings about the respondents profile in terms of marital status. Boxes were used by the researcher to present the respondent by ticking in the box provided in the questionnaire. Table 5 shows the distribution of the respondents by marital status.

Table 5:   Respondents marital status

Marital status	Frequency	Percentage
Married	13	50.0
Single	09	34.6%
Divorced	04	15.4%
Total	26	100.0

Source: Field survey, 2017

In Table 5, results indicated that most of the study respondents 13(50%) were married followed by 09 (34.6%) who were single (unmarried) while 0.4(15.4%) were divorced. These findings implied that most of the employees in CREEC were married. In relation to organisational performance, it can be interpreted to mean that due to their family obligations, married employees tend to be more committed to the job requirements as compared to their unmarried counterparts.

4.2.4 Respondents' Qualifications

The frequency distributions were further used to examine the highest academic qualifications of the respondents. This difference might contribute to differences in the responses given by the respondents. The findings are presented in table 6:-

Table 6:   Qualification of respondents

Qualifications	Frequency	Percentage
Diploma	04	53.8
Degree	14	15.4
Masters	03	11.5
PhD	05	19.2
Total	**26**	**100.0**

Source: Field survey 2017

According to Table 6, majority of the respondents at CREEC had a bachelor's degree as the highest level of academic attainment 14(53.8%), followed by 05(19.2) who were PhD holders

while few 03(11.5%) were master's degree holders. These results suggested that respondents were competent enough to perform as expected on the job.

4.2.5 Experience of respondents

Respondents were also used to state their experience and most of them were one and above in the responses given by the respondents. The results are presented in table 7 below:-

Table 7:   Experience of respondents

Experiences	Frequency	Percentage
Less than one year	13	50.0
1-5 years	09	34.6
Above 5 years	04	15.4
Total	**26**	**100.0**

Source: Field survey, 2017

Most of the study respondents 50% showed that they had experience of less than one year followed by those with experience between 1-5 years 34.6% while 15.4% had experience of above l5 years. These results were in tandem with the earlier results, showing that most of the respondents were fairly youthful.

4.3   Empirical findings

In this section, empirical findings of the study are presented in accordance with the study variables and objectives.

4.3.1 Risk identification and organisational performance of CREEC

In this section, the descriptive and correlational statistics on risk identification and organisational performance are given. The section also gives the results from the qualitative data from the key informants.

4.3.1.1. Descriptive statistics

In this section risk identification was studied following nine quantitative items on which study respondents were requested to do self-rating basing on likert scale ranging from 1 = strong agree, 2 = Agree, 3 = Neutral, 4 = Disagree and 5 = Strong disagree. Table 8 gives the results.

Table 8: Risk identification

Indicators of risk identification	SA	A	N	DA	SD	M	STD. Dev.
Clear observations of risk strategies were isolated in CREEC	16 (61.5%)	5 (19.2%)	1 (3.8)	1 (3.8)	3 (11.5%)	1.846	1.376
Risk observation strategies are accepted by all CREEC members	3 (11.5%)	14 (53.8%)	09 (34.7%)	00 00	00 00	2.230	0.651
Risk observation are respected by all CREEC members	9 (34.6%)	14 (3%)	03 (11.5%)	00 00	00 00	1.769	0.651

Meetings are held to identify possible risks at CREEC	14 (53.8)	4 (15.4%)	7 (26.9%)	1 (3.8%)	00 000	1.807	0.980
Censers agreements for risk identification are clearly defined by CREEC	2 (7.7%)	3 (11.5%)	4 (15.4)	14 (53.8%)	3 (11.5%)	3.599	1.104
Roles/responsibilities for risk identification are clearly defined by CREEC	9 (34.6%)	3 (11.5%)	10 (38.5%)	1 (3.8%)	3 (11.5%)	2.461	1.33
Establishing standards enhances risk identification in CREEC	14 (53.8%)	11 (42.3%)	1 (3.8%)	00 00	00 00	1.500	0.58
Risk identification is the basic stage in risk management	7 (26.9%)	13 (50%)	4 (15.4%)	1 (3.8%)	1 (3.8%)	2.076	0.97
Risk reviewers are done on monthly basis	7 (26.9%)	12 (46.2%)	6 (23.1%)	00 00	1 (3.8%)	2.074	0.93

Source: Field survey, 2017

Results as shown in Table 8 revealed that over 80.7% of respondents agreed that clear observations of risk were isolated at CREEC, as opposed to 15.3% who disagreed while 3.8% were neutral. The result meant that observations of strategies to address potential risk are clearly

made before risks are undertaken. Majority of the respondents 74.3% agreed that risk observation strategies are accepted by all members at CREEC compared to 34.6% who were not sure. The ability to take note of risks helps to conduct better assessment and devising means of addressing those risks, leading to enhanced organisational performance. Further, most of the respondents (88.4%) indicated that risk observation is respected by all members of CREEC, differing from 11.5% who disagreed. It is worth noting that observation of risks is a step towards mitigating them, an indication of effective organisational performance.

Findings further showed that majority (69.2%) of the respondents agreed that meetings were held to identify possible risk at CREEC as opposed to 3.8% who disagreed while 26.9% were not sure. This finding implied that the organisation took all possible measures to identify potential risks. Relatedly, 65.3% of the study respondents disagreed that confessors' agreement on results is a priority at CREEC as opposed to 19.2% who agreed while 15.4% were not sure. This finding meant that at times decisions made on risk identification are individually made.

Most of the respondents (46.1%) agreed that roles and responsibilities are clearly defined at CREEC compared to 15.3% who disagreed while 38.5% were not sure. Clarification of roles and responsibilities helps to give employees a clear direction and can thus lead to improved organizational performance. Still, majority of the respondents (96.1%) agreed that establishing standards enhances risk identification at CREEC as opposed to 3.8 who were not sure. Standards are key drivers of organizational performance as they help to rule out any ambiguities that may arise.

Majority of the respondents (76.9%) agreed that risk identification is the basic stage in risk management compared to 7.56% who disagreed, while 15.4% were not sure. These results suggested that risk identification forms the basis of risk management. Lastly, 83.1% of the study respondents agreed that risk reviews are carried out on monthly basis as opposed to 3.8% who disagreed while 23.1% were neutral. This results still was an indication the organization takes the necessary steps to identify potential risks that might negatively affect performance.

These percentages had similar results with the mean values which mean that it included between 1 and 2 which concurred with agreements with risk identification CREEC. The highest mean value was on item roles and responsibilities for risk identification are clearly defined at CREEC Mean = 2.461 while the lowest mean value was mean = 1.500 on item establishing standards enhances risk identification.

Mean = 2.14
Std. Dev. = .195
N = 26
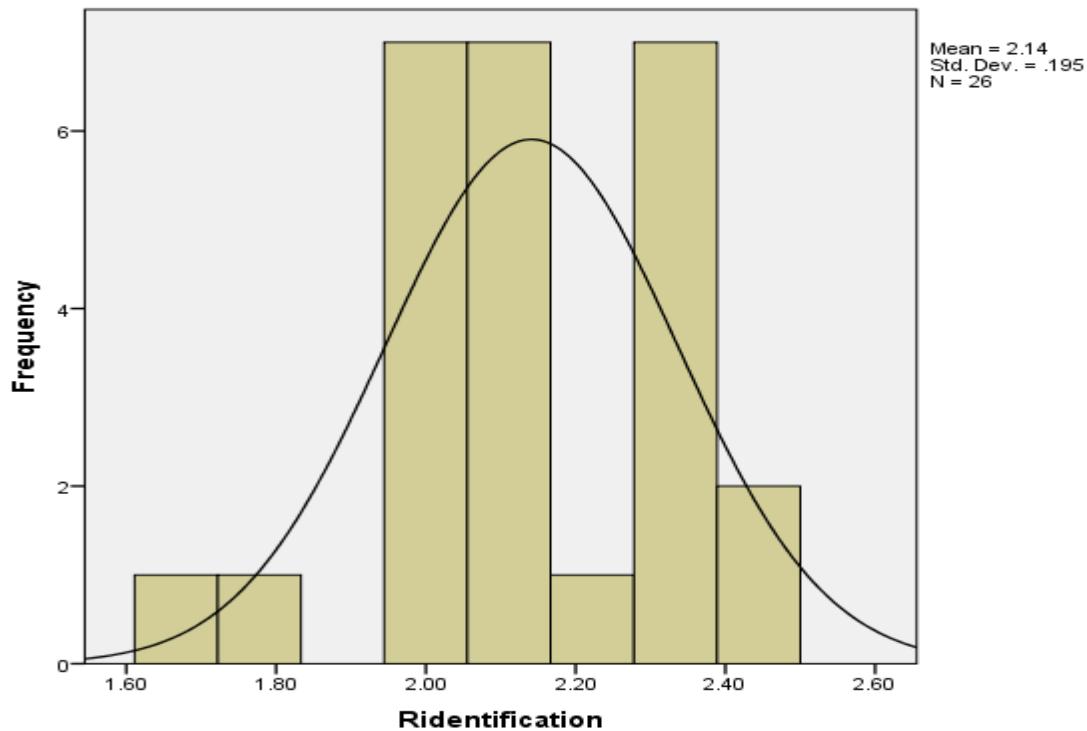
Source: Primary data

Figure 2: Risk Identification

According to Figure 2, majority of the respondents were on the left side of the histogram curve which implied that they concurred with the statements on risk identification in CREEC, as earlier observed.

From the qualitative findings, it was revealed that risk identification is frequently carried out at CREEC. Responding to what strategies CREEC put in place to identify risks, one of the respondents said;

CREEC holds serious meetings with employees. In addition it asks clients on what risks they face on the job.

Another interviewee shared:

At CREEC we always ensure that we use the open door policy. This policy has allowed us to detect all possible risks.

These findings revealed that asking questions, holding meetings and using open door management strategies were regularly applied in order to identify risk at CREEC.

In terms of the effectiveness of the risk identification strategies were perceived to be, a key informant shared thus;

These methods would be effective in the elimination of risks in the organization but people are not willing to give information at times

This finding revealed that lack of cooperation from interviewees may hinder risk identification processes at times.

4.3.1.2. Correlation results on Risk identification and organisational performance

The research offers the testing on objective one which shows that there is a positive relationship between risk identification and organizational performance. This hypothesis was tested using Pearson's correlation co-efficient index as in Table 9.

Table 9:   Pearson correlation co-efficient index between risk identification and organizational performance

	Pearson correlation	Risk identification	Organisational performance
Risk identification	Pearson correlation Sig 2 (tailed) N	1 26	0.598** 0.001 26
Organisational performance	Pearson correlation sig (2 tailed)	0.598** 0.001	1

	N	26	26

**Correlation is significant at the 0.01 level (2-talied)

Source: Filed survey, 2017

In table 9, results show Pearson correlation co-efficient index between risk identification and organizational performance and risk identification r = 0.598, Sig = 0.001. less than 0.05. This suggests a highly positive significant relationship between risk identification and organisational performance at CREEC. The result therefore implies that with more efforts in risk identification, by way of observations, holding meetings, defining responsibilities and standards at various stages, there will be greater chances of improving organisational performance and the reverse is true.

In agreement with the correlation results, one key informant shared;

 Once risks are identified effectively there are high cost reductions. Money that would be used to cater for these risks is used for constructive works.

The response from the key informant suggested that risk identification plays a vital role in enhancing performance at CREEC.

4.3.2   Risk analysis and organizational performance

This section gives results on risk analysis and organizational performance. The findings show the descriptive statistics results, indicating the percentage response per item, as well as the correlation statistics, in addition to the qualitative results.

4.3.2.1. Description of Risk Analysis

Risk analysis in this study was studied basing on nine quantitative items on which respondents were requested to do self-rating basing on Likert scale ranging from:

1 = Strongly Agree, 2 = Agree, 3 = Not sure, 4 = Disagree and SD = SD. Results arising from this are quantified in table 10

Table 10: Results on risk Analysis

Indicators of Risk Analysis	SA	A	N	DA	SD	M	STD. Dev.
Careful assessment of risk is made in CREEC project	17 (65.4%)	6 (23.1%)	3 (11.5%)	000 000	00 00	1.461	0.706
Analysis of risk follows the project plan drawn by CREEC	7 (26.9%)	6 (23.0%)	8 (30.8%)	4 (15.4%)	1 (3.8%)	2.461	1.174
There are regular reviews carried out on risks anticipated	7 (26.9%)	16 (61.5%)	1 (3.8%)	2 (7.7%)	00 00	1.923	0.796
Review and assessments of risks is made by competent personnel	9 (34.6%)	9 (34.6%)	6 (23.1%)	1 (38.5%)	1 (38.5%)	2.016	1.055
Findings from risk analysis are respected	2	8	5	10	1	3.000	1.055

and worked on immediately	(7.7%)	(30.8%)	(19.2%)	(38.5%)	(3.8%)		
Measurement of quantitative is done regularly	7 (26.9%)	8 (30.8%)	5 (19.2%)	3 (11.5%)	3 (11.5%)	2.500	1.333
Possibilities of incurring losses are identified in this organisation	05 (19.2%)	14 (53.8%)	4 (15.4%)	00 000	3 (11.5%)	2.307	1.15
Risks in this organisation are divided in sub levels for easy analysis	14 (53.8)	5 (19.2%)	03 (11.5%)	1 (3.8%)	3 (11.5%)	2.000	1.385
Direct risk analysis for every stage is carried out at this organisation	10 (38.5%)	10 (38.5%)	1 (3.8%)	1 (3.5%)	4 (15.4%)	2.192	1.412

Source: Field survey, 2017

In Table 10, results revealed that most of the study respondents (88.5%) agreed that careful assessment of risks is done at CREEC. More so, 50% agreed that risk assessment follows project plan drawn at CREEC as opposed to 19.2 who disagreed while 30.8% were not sure. These findings implied that risk analysis is done in accordance with the drawn plans at CREEC. Over 88% of the study respondents agreed that regular reviews on risks are carried out as

anticipated, as opposed to 7.7% who disagreed, while 3.8% were not sure. The result implied that risk analyses are carried on as anticipated. In addition, over 69.2% of the study respondents agreed that review and assessment of risks is made by competent personnel compared to 7.6% who disagreed while 23.1% were not sure. This finding implied that CREEC gives priority to competent personnel to conduct risk assessment; this can help to enhance organizational performance.

It was further observed that 42.3% of the study respondents disagreed that findings from risk analysis are respected and worked on immediately as opposed to 38.5% who supported the statement. This implies that while risk assessment may be effectively implemented, the failure to act on the results of the assessment can cost the organization in terms of performance. Most of the study respondents (67.7%) agreed that measurement of quantities is done regularly compared to 23% who disagreed while 19.2% were neutral. This implied that measurement of quantities is a priority in risk analysis carried out at CREEC. Most of the respondents (73%) affirmed the view that the possibilities for incurring losses in CREEC are identified, compared to 11.5% who disagreed while 15.4% were not sure. The ability to identify possibilities for loss incurring implies that measures can be designed in advance so as to avert the likely risks, thereby enhancing performance.

In addition, 79% of the study respondents agreed that risks in the organization are divided in sub-levels for easy analysis as opposed to 15.3% who disagreed while 11.5% were not sure. The finding implied that dividing risks in sub-levels allows easy analysis of risks. Lastly, it was noted that over 77% of the study respondents revealed that risk analysis for every stage is

carried out in CREEC as opposed to 19.2% who disagreed while 3.8% were neutral. This suggested comprehensive risk analysis at all sub levels.

The mean values indicated that the highest mean value was mean = 3.00 on Item findings from risk analysis are respected and worked on immediately and the lowest mean value was mean = 1.461 on item carefully assessment of risk is carefully made   These mean values revealed that risk analysis is effectively carried out at CREEC. The standard deviations were low since they ranged below 2 which implied communality of respondents views from one respondent to another.

Mean = 1.99
Std. Dev. = .246
N = 26
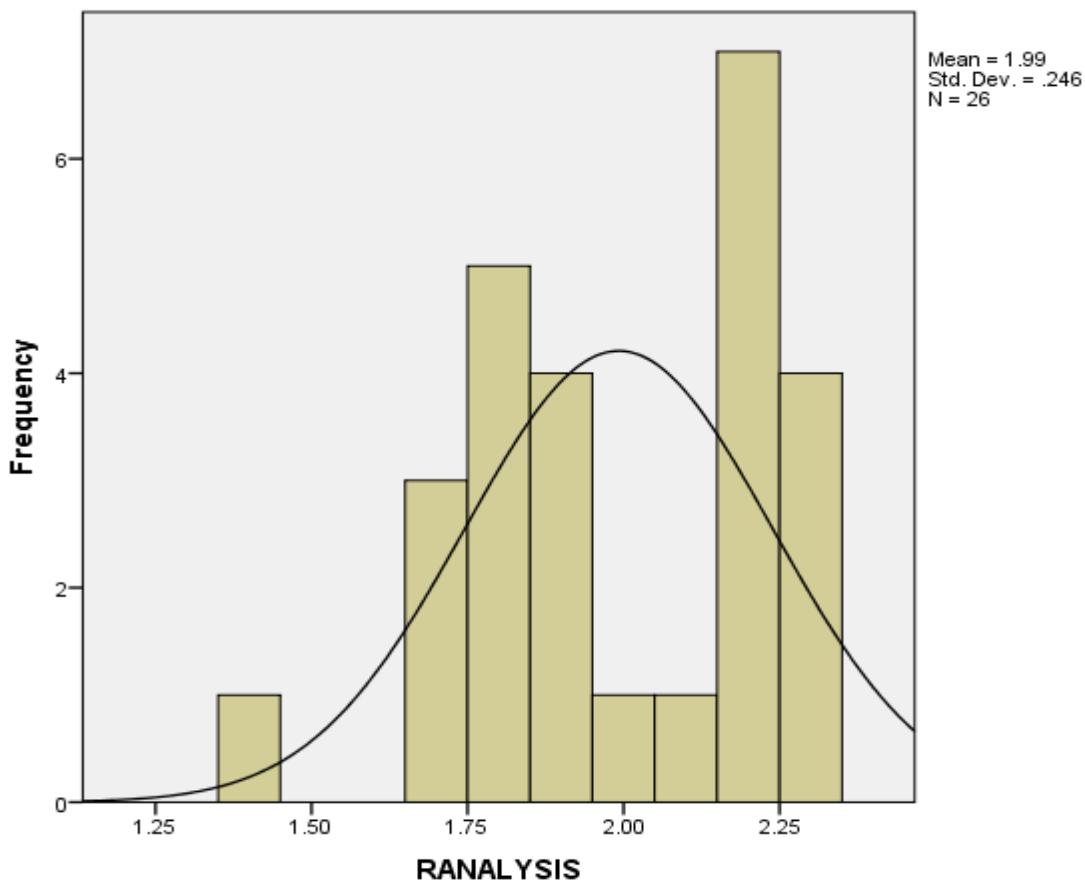
Source primary data

Figure 3: Risk analysis

According to figure 3, Risk analysis revealed that most of the participants concurred with the view that risk analysis is effectively carried out at CREEC. On the various ways used to analyse risks at CREEC, study participants showed that they always use reviews asking people how they go about risks. One of the study participants said;

We use monitoring tolls for checklist, status of work done activities done every week

These findings showed that CREEC as an organization pays great attention to risk analysis; this can help to enhance the overall performance of the organization.

4.3.2.2 Correlation results for risk analysis and organizational performance

The second objective of the study intended to establish the between risk analysis and organisational performance at CREEC. Using Pearson correlation co-efficient index this hypothesis produced results as in Table 11.

Table 11: Pearson correlation co-efficient index between risk analysis and organizational performance

	Pearson correlation	Risk analysis	Organisational performance
Risk analysis	Pearson correlation Sig 2 (tailed) N	1 26	0.585** 0.0021 26
Organisational performance	Pearson correlation sig (2 tailed)	0.585** 0.002	1

	N	26	26

*Correlation to significant at the 0.05 level (2-tailed)

Source: Field survey, 2017

Table 11 shows Pearson Correlation co-efficient index between risk analysis and organizational performance r = 0.585 and sig = 0.002. less than 0.05. This suggests a highly positive significant relationship between risk analysis and organizational performance at the five percent level 2 tailed. These findings revealed that the more risk analysis is carried in CREEC the greater the possibility of performing highly in terms of high profits, meeting deadlines, target among others.

Interview findings on how risk analysis influences organizational performance at CREEC revealed that through risk analysis organizational performance improves highly. One of the participants said;

 The performance has become better. It has reduced loss of equipment and better handling of equipment.

These quantitative and qualitative findings from the questionnaires and interviews suggested that risk analysis is a central element in the realization of improved performance at CREEC.

4.3.3: Risk evaluation and organizational performance at CREEC

This section presents findings on risk evaluation and organizational performance. The section begins with the descriptive statistics and later presents the correlation statistics. In addition, qualitative results are interwoven with the quantitative results in order to aid interpretation.

4.3.3.1. Description of risk evaluation

Risk evaluation the third component of risk management was operationalised into nine quantitative item on which study respondents were requested to do self rating basing on Likert Scale ranging from 1 = SA, 2 = A, 3 = Not sure, 4 = D, and 5 = SD. Results from evaluation are presented in Table 12:

Table 12: Results on risk Evaluation

Indicators of Risk Evaluation	SA	A	N	DA	SD	M	STD. Dev.
Monitoring of various risk is made in CREEC project	16 (61.5%)	10 (38.5%)	00 00	00 00	00 00	1.384	0.496
Monitoring of risks is done using either internal or external experts	6 (23.1%)	13 (50%)	7 (26.9%)	00 00	00 00	2.038	0.720
Central techniques of risks were designed in CREEC	10 (38.5%)	11 (42.3%)	00 00	4 (15.4%)	1 (3.8%)	2.038	1.182
A risk control plan is followed in CREEC project	00 00	14 (53.8%)	3 (11.5%)	5 (19.2%)	4 (15.4%)	2.961	1.182
Risk assumptions are identified land	11	8	1	3	3	2.192	1.414

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evaluations done to allow them closely	(42.3%)	(30.8%)	(3.8%)	(11.5%)	(11.5%)		
Employees are trained on what to consider when carrying out risk evaluations	6 (23.1%)	8 (30.8%)	5 (19.2%)	7 (26.9%)	00 00	2.500	1.414
Risk evaluation of this organisations is both quantitative and qualitative	5 (19.2%)	6 (2.1%)	8 (30.8%)	4 (15.4%)	3 (11.5%)	2.761	1.274
Monitoring and control of risks are highly carried out in this organisation	16 (61.5%)	5 (19.2%)	2 (7.9%)	00 00	3 (11.5%)	1.8077	1.327
Monitoring of risks in this organisation cherishes its ethical values	3 (11.5%)	13 (50%)	6 (23.1%)	4 (15.4%)	00 00	2.423	0.902

Source: Field survey, 2017

Results in table 12 showed that 61.5% of the respondents strongly agreed that monitoring of various risks is made at CREEC, followed by 38.5 who agreed with the same. In total all the 100% of respondents agreed with the view that monitoring of risks is made at CREEC. The result was an indication that CREEC pays attention to monitoring of risks; this can help to

enhance organisational performance. Besides, results indicated that majority of the respondents (73.1%) affirmed that internal or external experts conducted risk evaluation at CREEC compared to 26.9% who were not sure.

It was observed from table 12 that most of the study respondents 80.8% agreed that central techniques of risk evaluation were designed in CREEC, as opposed to 19.2 who dissented. More so, majority of the study respondents (53.8%) agreed that a risk control plan is followed at CREEC, implying that all measures are taken such that risks do not hamper organisational performance at CREEC.

Majority of the study respondents 73.1% agreed that risk assumptions are identified land evaluations done and followed, as opposed to 23% who disagreed while 3.8% were neutral. This shows that risk assumptions are detected and evaluations followed closely. Further, 53.9% of the respondents agreed that employees are framed on what to consider when carrying out risk evaluation compared to 26.9% who disagreed. This implied that employees are trained on what to consider when carrying out risk evaluations which reduces the possibility of risk to occur.

Additionally, 42.3% of the study respondents agreed that risk evaluation in their organisation is both quantitative and qualitative compared to 30.8% who were not sure. This suggests that mixed methods are applied in risk evaluation. More so, 80.7% agreed that monitoring and control of risks are highly carried out in this organisation as opposed to 11.5% who disagreed while 7.7% were not sure. This implied that monitoring and control of risks is effectively

carried out in the organisation. Lastly, majority of the respondents 61.5% agreed that monitoring in the organization cherishes ethical issues as opposed to 15.4% who disagreed. These findings implied that risk evaluation is highly valued and considered in CREEC. Qualitative findings on risk evaluation showed that to a large extent, risk evaluation is carried out at CREEC, which has enhanced organizational performance. One respondent shared thus, on the question of the various ways the project had adopted to evaluate risks.

There are always evaluations of financial impact, repletion of the organization and evaluation of face value

Another participant mentioned that there are always weekly meeting carried out to evaluate risks. These finding revealed that risk evaluation is considered a priority at CREEC.

The mean values revealed the highest mean as mean = 2.961 on Item a risk control plan is followed at CREEC and the lowest mean as = 1.384 on item monitoring of various risks is made at CREEC these mean values suggested that evaluation of risk is highly considered in CREEC.

Mean = 2.24
Std. Dev. = .26
N = 26
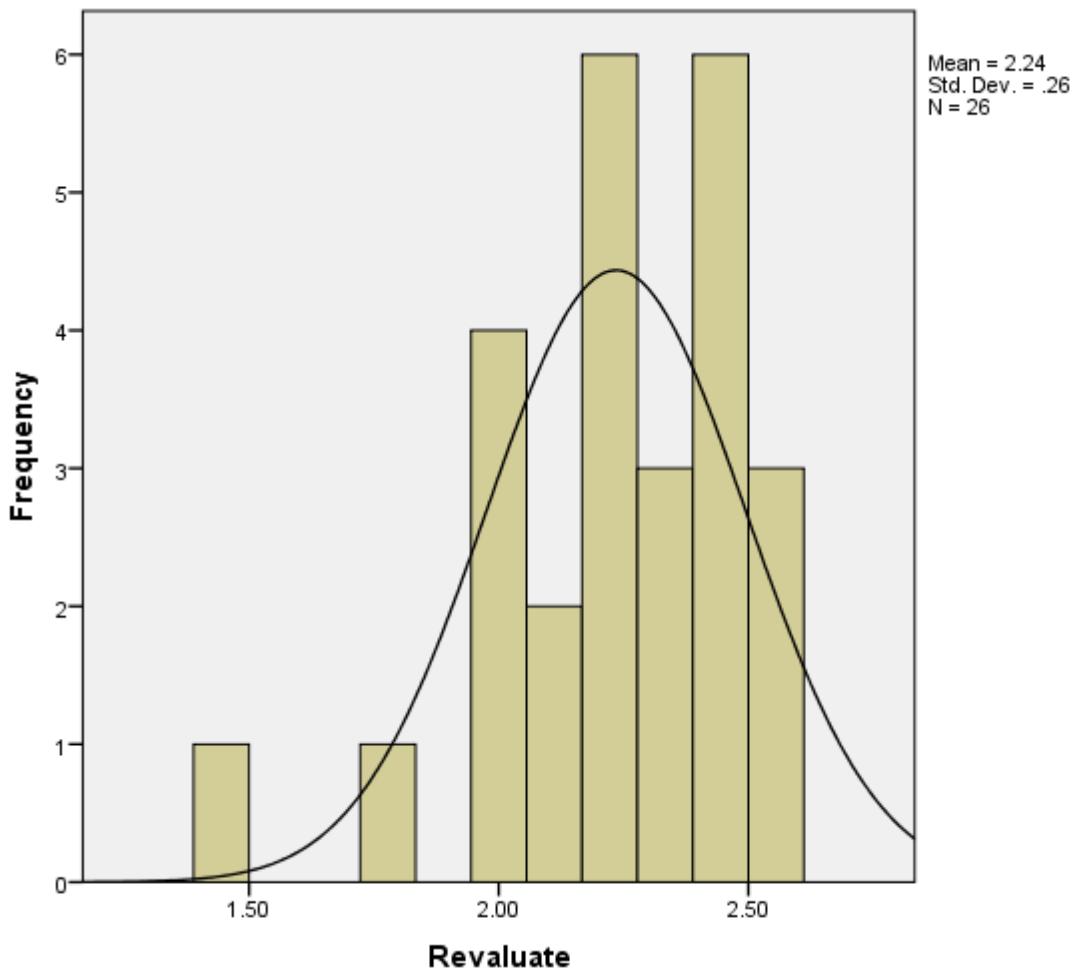
Source primary data

Figure 4: Risk evaluation

Figure 4 showed that risk evaluation was carried out at CREEC which had enhanced organizational performance. On the question state the various ways this project had adopted to evaluate risks. One of the participants said "there always evaluations of financial impact, repletion of the organization and evaluation of face value" Another participant mentioned that there are always weekly meeting carried out to evaluate risks. These finding revealed that risk evaluation is a priority of CREEC

4.3.3.2 Correlation results for risk evaluation and organisational performance

Hypothesis three was such that risk evaluation has significant relationship with organisational performance at CREEC. This hypothesis was tested using Pearson correlation Co-efficient index findings arrived at are presented in table 13.

Table 13:   Pearson correlation co-efficient index between risk identification and organisational performance

	Pearson correlation	Risk evaluation	Organisational performance
Risk evaluation	Pearson correlation Sig 2 (tailed) N	1 26	0.414** 0.036 26
Organisational performance	Pearson correlation sig (2 tailed) N	0.414** 0.036 26	1 26

Table 13 shows Pearson Correlation co-efficient index between risk evaluation and organisational performance of CREEC, with r = 414 and sig = 0.036. less than 0.05. This suggests a positive significant relationship between risk evaluation and organisational performance at the full percentage level 2 tailed. This implied that once measures for risk evaluation are enhanced, there are high chances that profit margins, performance standards, high productivity will be enhanced and the reverse is true.

Qualitative findings on risk evaluation showed that to a large extent risk evaluation is carried out at CREEC which has enhance organizational performance. On the question state the various ways this project has adopted to evaluate risks. One of the participants said "there always evaluations of financial impact, repletion of the organization and evaluation of face value"

Findings on risk management evaluation showed that risk evaluation is highly emphasized despite slight failures in one way or the other. This was shown also by means which showed agreement with the lowest mean on Item organizational performance at CREEC has shown high profits mean = 1.423.and highest mean =   3.192.on item CREEC staff are rewarded for exceeding performance standards

4.3.4   Organisational Performance

Organisational performance at CREEC was operationalised using 11 quantitative items on which respondents were requested to do self rating using Likert Scale ranging from 1 – SD   2 = Agree , 3 = Not sure, 4 = A, and 5 = SA. Results on this objective are presented in Table 14

Table 14:   Results on Organisational Performance

Indicators of Organisational Performance	SA	A	N	DA	SD	M	STD. Dev.
Organizational performance of CREEC has shown high profits	19 (73.1%)	04 (15.4%)	02 (7.7%)	1 (3.8%)	00 00	1.423	0.508
The profits of CREEC project are visible to every individual	1 (3.8%)	11 (42.3%)	13 (50%)	00 00	1 (3.5%)	2.576	0.757
The project produces quality products	7 (26.9%)	17 (65.4%)	1 (3.5%)	1 (3.8%)	00 00	1.846	6.745
The project meets deadlines	14 (53.8%)	11 (42.8%)	1 (3.8%)	00 00	00 00	1.500	0.583
There is low profit margin of this project						2.923	1.262
The competencies of effective performance are defined	3 (11.5%)	9 (34.6%)	1 (3.8%)	7 (26.9%)	6 (23.1%)	3.153	1.433
CREEC staff rewarded for exceeding service standards	4 (15.4%)	6 (23.1%)	6 (23.1%)	1 (3.8%)	9 (34.6%)	3.19	1.523

CREEC team departments has measures of their quality of service	3 (11.5%)	14 (53.8%)	7 (26.9%)	00 00	2 (7.7%)	2.384	0.982
There are workshops organized to assess risks in the organisation	13 (50%)	9 (34.6%)	00 00	00 00	4 (15.4%)	1.961	1.399
There is failure of risk management in the organisations	1 (3.8%)	21 (80.8%)	1 (3.8%)	3 (11.5%)	00 00	2.230	0.710

Source: Field survey, 2017

Results in table 14 indicate that most of the study respondents (88.5%), agreed that organization performance at CREEC has shown high profits, compared to 3.8% who disagreed while 7.7% were not sure. This shows that performance at CREEC produces positive results. Further, 45.1 % agreed that profits of CREEC are visible to every individual as opposed to 3.8% who disagreed while 50% were not sure. These findings suggested that while there may be substantial realization of profits, most employees at CREEC employees were uncertain as to whether the organisation realises any profits.

Most of the study respondents (91.3%) admitted that the project produces quality products as opposed to 3.8% who disagreed while 3.8% were not sure. These results indicated that CREEC products are of a high quality, an indication of effective performance. In addition, over 96.1% of the CREEC employees indicated that the project meets deadlines as opposed to 3.8% who were not sure. These results revealed that project deadlines are closely met and fulfilled. This could be interpreted to mean that there is effective performance in the organisation, since timeliness is a measure of good performance.

More so, 50% of the study respondents disagreed that competences of effective performance are defined as opposed to 45.1% who agreed while 3.8% were not sure. These results revealed that performance guidelines and standards are in some instances not well defined to each employee; this can have a negative impact on performance in the organisation. Findings further showed that 38.5% of the respondents agreed that CREEC staff are rewarded for exceeding service standards as opposed to 38.4% who disagreed while 23.1% were neutral. This shows that to some extent employees are rewarded when they exceed service standards, which may services as motivation to perform highly. However, there might be possibility that the system of rewarding the employees has some gaps that may need to be addressed in order to realise its full benefits.

Notably still, majority of the respondents (65.3%) indicated that CREEC team has measures for their quality of service as opposed to 7.7% who disagreed while 26.9% were sure. Having in place measures for quality of service provides guidance to employees on service standards and can thus enhance performance of the organisation. Lastly, 84.6% agreed that there are

workshops organized to assess risks in the organization compared to 15.4% who disagreed. This suggests that workshops are highly organized in CREEC organization.

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Mean = 2.30
Std. Dev. = .302
N = 26
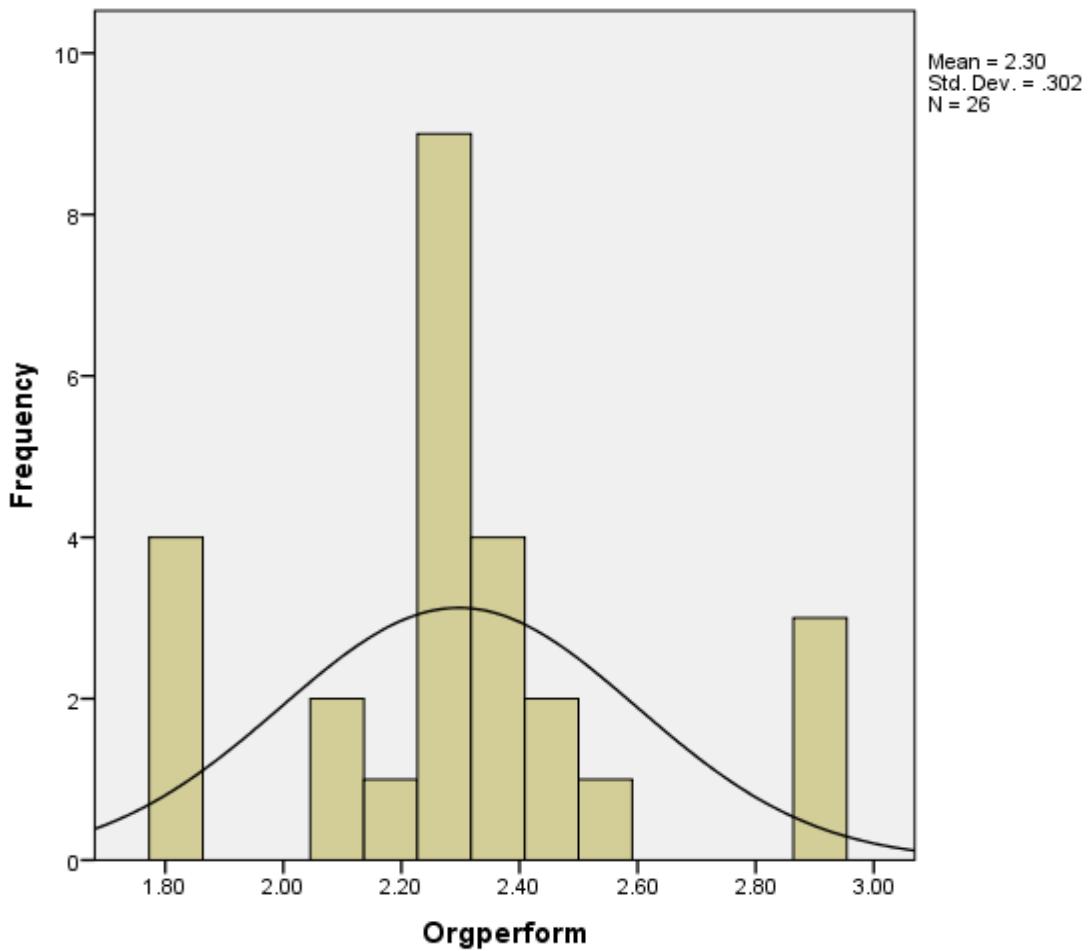
Source primary data

Figure 5: Organizational performance

Figure 5 showed that organizational performance was carried out at CREEC which had enhanced organizational performance. One of the questions states that the project had adapted to high profits of organizational performance.

4.4 Conclusion

This chapter presented the results of the statistical analysis of the hypotheses, and the findings collected from the respondents in Centre for Research Energy and Energy Conservation. The correlation analyses were used to test for the relationship among the variables of interest provided in this study. From the above findings, it is observed that all the three independent variable dimensions were significantly related to organizational performance. The next chapter will discuss the study findings, draw conclusions and make recommendations.

CHAPTER FIVE:

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1   Introduction

In this chapter offers a summary of results from the questionnaire, interview, observation and documentary check list. The discussion of findings obtained from empirical results in review of the research objectives, stated that hypothesis and similar findings in the other research elsewhere, this chapter further presents the conclusions and recommendations made for future studies on subject of risk management and organizational performance.

5.2. Summary of findings

This section gives the summary of key results of the study, presented objective by objective.

5.2.1. Risk identification and its effect on organizational performance of CREEC

Results of the research showed that there is a positive significant correlation between risk identification and organizational performance of CREEC. From the correlation result, it was found that risk identification was positively correlated with organizational performance, posting a Pearson correlation coefficient of .598**. Majority of the respondents affirmed most elements of risk identification as having a strong influence on organizational performance. The research deduced that CREEC pays great attention to ensuring proper risk identification, as was noted through majority of the responses.

5.2.2. The effect of risk analysis on organizational performance of CREEC

There was a moderately strong positive significant relationship between risk analysis and organization performance, with r =.585[**]. The result was an indication that risk analysis, if properly done, would help to improve organisational performance at CREEC. From the findings, it can therefore be inferred that risk analysis could enhance organisational performance.

5.2.3. The effect of risk evaluation on organisation performance of CREEC

Analysis through the relational statistics showed that risk evaluation was positively correlated with organisational performance of CREEC (r=.414**; p-value =0.036). Put differently, the result meant that risk evaluation was positively related to organisational performance at CREEC by 41.4%. From the descriptive statistics, it was noted that most respondents affirmed the view that risk evaluation could enhance organisational performance of CREEC.

5.3   Discussion and findings

In this section the discussion of study findings is given. This discussion follows the respective study objectives. The results discussed were obtained from a self-administered questionnaire and interviews.

5.3.1   Objective one: Risk identification and organizational performance

Objective one was to establish the relationship between risk identification and organizational performance at CREEC. The results of the study on this objective revealed a highly positive significant relationship between risk identification and organizational performance at CREEC.

It meant that as risk identification is carefully carried out, the possibility of a risk to occur will be minimized leading to high productivity and profits in CREEC. These findings concurred with earlier studies of these findings agreed with Pritchard (2010) who affirms that risk identification is organized through approach to finding real risks associated with the project so that one can be able to come up with appropriate intervention to mitigate the effects of the identified risks. This enhances performance in one way or the other once carried out effectively.

In line with the study findings Ping and Muthuvelo (2015) argued that if risks are managed effectively especially by careful identification, it enables obtaining consistent, understandable, operational risk measures which increases the firm's ability to achieve intended objectives. Further, the findings of the study showed that through risk identification costs are reduced. This concurred with Bakker, Boonstra, Wortmann (2012) who emphasized that risk identification is the most influential process in terms risk management and that once handled effectively leads to high performance.

The study findings were in tandem with, Damokos, Nyeiki, Memethui and Hatvani (2015) who observed that risk identification including information about discrepancies, their main reason and they potential consequences helps to realize posture and significant performance outcomes.

The study findings were in agreement with Atff, Zakuan,,Tajudin and Ahmed (2014) who revealed that risk identification was implemented effectively leading to high performance and higher education institutions. In conclusion, risk identification ahs a highly positive significant relationship with organizational performance at CREEC.

5.3.2   Objective two: Risk Analysis and organisational performance

Objective two was to establish the relationship between risk analysis and organizational performance at CREEC. The study on this objective showed a highly positive significant relationship between risk analysis and organizational performance at CREEC. Findings of this objective suggested that once risk analysis is carried out in CREEC, organizational performance will be enhanced, in form of cost reductions, quality produce and timely completion of performance targets.

 This finding concurred with that of Damokos, et al (2015) who stressed that risk management process through analysis risk helps to eliminate problems that affect the project leading to proper performance of the firm. Hence risk analysis helps to provide information to business owners to help make decisions regarding practices leading to high performance. In line with the study finding Damokos, et al. (2015) further argued that in the course of risk analysis, necessarily relevant and reliable information is collected and mapped with present needs. Once this is done compliance with performance needs is possible.

The study findings showed that through risk analysis the possibility of a risk to occur s eliminated. This was in support of Nair Purohit and Choudhary (2014) who noted that risk analysis especially through cost benefit analysis plays an important role in determining high profit margins. This is mainly done through several qualitative and quantitative techniques of CREEC.

Empirically, the study result was in consonance with Ariif, Zakwan, Tajudin (2014), whose study about a context for risk management practices and organizational performance on higher education revealed that risk analysis was implemented to the benefit of the organization in terms of enjoying high performance. In conclusion risk analysis has a highly positive significant relationship with organizational performance at CREEC.

5.3.3 Objective Three: Risk evaluation and organizational performance at CREEC.
Findings from this objective revealed a highly positive significant relationship between risk evaluation and organizational performance at CREEC. This suggested that as risk evaluation in form of risk assessment, control and audit are carried out the possibility of CREEC performing as expected is high. This finding is supported by earlier works of Saleen and Abdeen (2012) who stated that risk evaluation is a suitable option in drawing a mitigation plan to various risks, which can enhance performance. The study findings were further in tandem with Damokos et al., (2015) who stated that risk control involves following bench marks designed through regular audits in the way doing standards and guidelines of international organizations and projects on various ways of controlling risk are enforced leading to high performance of such a firm.

The study results showed that risk evaluations helps to ensure high profits of a firm. This finding was in agreement with Ridha and Alnaji (2015) who stated that risk assessment is the basis for building plans in the face of danger. The aim of this process is control produce risk from occurring. This assessment is of great importance to the organisations and entrepreneurs in terms of making high profits.

In conclusion risk evaluation has a highly positive significant relationship with CREEC performance.

5.4 Conclusions

From the study findings, and discussion the following conclusions were drawn objective by objective

5.4.1. Risk identification and its effect on organizational performance of CREEC

From objective one it was concluded that risk identification in form of meetings and carrying out observations has a highly positive significant relationship with organizational performance at CREEC. Once these are effective the organizational performance enhances.

5.4.2. Risk analysis and its effect on organizational performance of CREEC

From Objective 2, it was concluded that risk analysis has a highly positive significant relationship with organizational performance at CREEC. As risk reviews are carried out the costs that would be incurred reduces leading to high organizational performance.

5.4.3. Risk evaluation and its effect on organisational performance of CREEC

From objective 3, it was concluded that risk evaluation through monitoring control and audit has highly positive significant relationship with organizational performance at CREEC.

5.5 Recommendations to the study

From the study findings, discussing and conclusions the following recommendations were made if CREEC performance is to be high;

- ❖ CREEC managers should put up observation teams, and continuously hold meetings from lower units of administration to the top most level of administration.

- ❖ Leadership at CREEC should ensure that risk analysis is prioritized through holding regular reviews, and assessment to reduce on the possibility of risks to occur.

- ❖ Finally in the policy statement of CREEC audits, risk controls should be clearly emphasized to ensure compliance with performance goals.

5.6 Limitation of the study

The researcher encountered limitation that included the following:

Time was lost as the research offered explanations that the study was purely for academic purposes. Further, some of the respondents failed to return the questionnaires issue to them. In this regard, they proved in uncooperative. Lastly, there were challenges encountered during analysis of quantitative data and interpreting it. This was solved through hiring a technical person to give guidance.

5.4 Areas for further research

Due to constraints of time and a wide scope of the study variables, this study focused on risk management dealing with risk identification, risk analysis and risk evaluation. However, there are other variables which might also have an influence on CREEC performance, like rewards, work environment of employees, leadership styles which may need attention of future researchers to establish how they relate with CREEC organizational performance.

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APPENDIX 1: Questionnaire

Dear Sir/Madam,

I, Namakula Madiinah of Uganda Management Institute (Kampala Campus), I am carrying out research to find the relationship between risk management and organizational performance in CREEC and part of education research for the awarding of Masters degree in Management studies (Project Planning and Management). The information will be treated with utmost confidentiality and no one's name will appear in report writing.   Your cooperation of participation in this study is highly appreciated.

Yours faithfully

………………………..

Namakula Madiinah

Section A: Respondents' data

Tick the most appropriate alternative to you

1.   Sex:

Male ☐

Female ☐

2. Age:

18-25 ☐

26-30 ☐

30-40 ☐

Above 40 years ☐

3. Marital status:

Married ☐

 Single ☐

Divorced ☐

4. Level of qualifications:

Diploma ☐

Degree ☐

Masters ☐

PhD ☐

5. Experience of the employee in CREEC:

Less than 1 year

☐

1 – 5 years   ☐

Above 5 years   ☐

Section B: Independent variable

Risk Management in this study will be operationalised into three – Risk Identification, Risk Analysis and Risk Evaluation. Indicate your level of agreement regarding the method of risk management used in CREEC. **SA**-strongly agree   **A-**Agree   **D-**Disagree **SD-**Strongly disagree **NS-** note sure.

Risk Identification

Method	SA	A	D	SD	NS
Clear observations of risk strategies were isolated in CREEC					
Risk observation strategies are accepted by all members of CREEC					
Risk observation are respected by all members accepted by all members of CREEC					
Meetings are held to identify possible risks in CREEC					
Consensus agreements on risk is a priority of CREEC					
Roles responsibilities for risk identification are clearly defined by CREEC					
Establishing standards enhances risk identification in CREEC					
Risk identification is the basic stage in risk management					
Risk reviews are done on monthly basis					

Risk Analysis

METHOD	SA	A	D	SD	NS
Careful assessment of risks is made in CREEC project					
Analysis of risks follows the project plan drawn By CREEC					
There are regular reviews carried out on risks anticipated					
Review and assessments or risks is made by competent personnel					
Findings from risk analysis are respected and worked on immediately					
Measurement of quantities is done regularly					
Possibilities of incurring losses are identified in this organisation					
Risks in this organisation are divided in sub levels for easy analysis					
Direct risk analysis for every stage is carried out in this organisation					

Risk Evaluation

METHOD	SA	A	D	SD	NS
Monitoring of various risks is made in CREEC project					
Monitoring of risks is done using either internal or external experts					
Control techniques of risks were designed in CREEC					
A risk control plan is followed in CREEC project					
Risks assumptions are identified and evaluations done follow them closely					
Employees are trained on what to consider when carrying out risk evaluations.					
Risk evaluation in this organisation is both quantitative and qualitative					
Monitoring and control of risks are highly carried out in this organisation					
Monitoring of risks in this organisation cherishes it ethical values					

Organisational performance

METHOD	SA	A	D	SD	NS
Organisational performance of CREEC has					
The profits of CREEC project are visible to every individual					
The project produces quality products					
This project meets deadlines					
There is low profit margin of this project					
The competences of effective performance are defined					
CREEC staff are rewarded for exceeding service standards.					
CEEC each team/department has measures of their quality of service					
CREEC have established service standards					
There are workshops organized to assess risks in organization.					
There is failure of risk management in the organization					

Thank you for your time and co-operation

APPENDIX II: Interview Guide

Dear participant you are requested to give necessary information in this survey. Responses given will be used for academic purpose only. Arrange me a fifteen minutes interviews.

Thank you.

1. What strategies have you put to identify risks in CREEC?

……………………………………………………………………………………….

2. How effective are these strategies in elimination or risks in CREEC?

……………………………………………………………………………………….

3. How has risks identification influenced on organisation performance in CREEC?

………………………………………………………………………………………

4. State the various ways how CREEC has adopted to analyse risk.

………………………………………………………………………………………

5. How has risk analysis helped to enhance organisational performance at CREEC?

………………………………………………………………………………………

6. State the various ways this project has adopted to evaluate risks.

……………………………………………………………………………………….

7. How has evaluation helped to enhance organisational performance?

……………………………………………………………………………………….

8. To what extent are risks disused in CREEC strategic planning?...............................

9. What steps does CREEC requires for collection of systematic data and risk management for analysing its performance?   ....

10. What can be done to improve risk management in CREEC?…………………………….

THANK YOU

APPENDIX III: Documentary review check list

TITLE	DETAILS
CREEC retention reports	Total number of current customers and customers who terminate the service monthly
CREEC brand and marketing departments reports	Changing trend in the sale of fiscal products
Newspapers and company feedback	Customers comments in regards to the services
Research/Library services	Research library services constraints