EFFECT OF EXCHANGE RATE FLUCTUATION ON
PROJECT BUDGET: A CASE OF PRIME K AT THE
UNIVERSITY OF NAIROBI

BY

GEORGE WAMBIRI NDAMAIYU

UNITED STATES INTERNATIONAL UNIVERSITY-
AFRICA

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Partial Fulfillment of the Requirement for the Executive Masters of
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SUMMER 2015
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than United States International University - Africa.

Signed: ____________________________  Date: ____________________________

George W. Ndamaiyu (ID. No 644490)

This research project has been presented for examination with our approval as the appointed supervisors.

Signed: ____________________________  Date: ____________________________

Prof. Amos Njuguna

Signed: ____________________________  Date: ____________________________

Dean Chandaria School of Business
ABSTRACT

The general objective of the study was to establish the effect of foreign exchange fluctuation on budget of Prime K project. The study was guided by the following research objectives: To determine the exposures to foreign exchange fluctuations, to establish the effects of exchange rate fluctuation and to analyze the strategic options available to manage foreign exchange rates risks. This research was a descriptive case study of PRIME K funded projects financed in foreign currencies. The study population included 151 PRIME K employees in Nairobi. The study adopted simple random sampling in order to select the respondents to be involved in this study in which a sample size of 50 respondents were selected. Self-administered questionnaires were delivered to key respondents or project officers using 'drop and pick later' technique. Descriptive statistics in form of frequency tables as well as inferential statistics were used to analyze the data.

The study revealed that Prime K is exposed to Foreign Exchange Risks in form of transaction risk, economic risk exposure as well as translation risk. The study also shows that volatile exchange rates affect the revenue and profits, financial performance, foreign exchange fluctuations affects accounting earnings and the market value of the organization, foreign exchange fluctuations negatively affects cash flows, leads to deviations from project budgets, results in high adjustment costs which affects the performance of projects and finally there exists a significant relationship between forex risk and project performance of Prime K projects.

Short sighted currency derivatives are used to manage risks hedging is used to manage forex risk at Prime K diversification of international operations is an important aspect in managing economic exposure at Prime K a currency forward contract is particularly useful for exposures that are short to medium term and whose timing is known for certainty financial means are more important in managing risks at Prim K operating exposure cannot be quantified properly in order to be hedged by financial means operating exposure is better managed by operational means that included the choice of the relevant strategy to be adopted as well as the relevant location of the business among other important elements.
The study concludes that Prime K is exposed to Foreign Exchange Risks in form of transaction risk, economic risk exposure as well as translation risk. The study also concludes that there is a relationship between forex fluctuations and project performance. Finally the study concludes that hedging, diversification of international operations, forward contracts can be used to manage forex risk exposures.

The study recommends the need for managers at Prime K, to clearly set up a special unit to examine the various ways in which foreign exchange exposures occur in Kenya and therefore prepare the organization to face these exposures especially when sudden changes in the operating environment come into play.
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I thank our Almighty God for his grace and sustenance that has seen me complete this course successfully. This journey would not have been successful had it not been by the grace of God that was sufficient to me given that I was never taken ill through the entire period that I was engaged in undertaking this project. Additionally God has been my provider financially, without which I would not have been able to finance this project and my studies in general.

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Thirdly I would like to acknowledge the massive contribution of my family in ideas and moral support, especially so my beloved wife who was always willing to read through my research and provide corrections and way forward on what she perceived to be improper may the almighty God bless you!

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DEDICATION

This study is dedicated to first and foremost to God for seeing me through. To my adoring wife, words cannot describe how grateful I am for your support. I extend my uttermost appreciation for their encouragement and support during my entire life time.

I also dedicate this to my immediate family members and my employer for allowing me to use my organization as a case study.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Risk has been studied since the seventeenth century and research on risk was first adapted to the business context in the 1950’s (Snider, 1991). Foreign exchange risk management has become increasingly important since the abolishment of the fixed exchange rate system of Bretton Woods in 1971. After the post-war Bretton Woods system of fixed exchange rates collapsed in 1973 (Abor, 2010). Such fluctuations affect both the cash flow of a firm’s operations and the value of a firm.

From a theoretical perspective, it is a generally held view that exchange rate fluctuations are an important source of macroeconomic uncertainty. According to the economic theory such massive exchanges in exchange rate are likely to produce a shift when it comes to stock prices, directly especially when it comes to multinational firms, exporting as well as those companies that are dealing with imports and those firms who import part of their inputs while it appears to be indirectly for other companies. Additionally it has been established that exchange rate movements have an effect on both the prices of imported finished goods as well as the costs of imported inputs, and this therefore influences indirectly those companies who are in competition with such firms (Grambovas and McLeay, 2012). They should thus have a significant impact on firm value, regardless of whether the firm is domestically or internationally oriented. This is because growing globalization has encouraged many corporations to extend their businesses beyond the geographical boundaries in order to benefit from competitive advantage and economies of scale. Therefore, organization managers are focusing on the importance of risk management techniques to reduce variability of their cash flows from foreign operations due to the fluctuations in foreign exchange rates, (Afza and Alam, 2014).

Generally, firms are exposed to three types of foreign exchange risk: transaction (commitment) exposure, economic (operational, competitive or cash flow) exposure and translation (accounting) exposure. Transaction risk occurs where the value of existing obligations are worsened by movements in foreign exchange rates. Economic risk relates to adverse impact on equity/income for both domestic and foreign operations because of
sharp, unexpected change in exchange rate. Translation risk is also related to assets or income derived from offshore enterprise (Glaum, 2010).

Risk exchange fluctuations always expose majority of the firms to foreign exchange risk. In addition most of the economies are therefore becoming more and more open when it comes to international trading which is constantly growing and as a result firms operating in such an environment become more exposed to foreign exchange rate fluctuations. Firms involved in international trade are subject to transaction risk arising from payables and receivables in foreign currencies. Firms involved in international trade are also subject to transaction risk arising from payables and receivables in foreign currencies. Also, multinational firms with operations in several countries will have translation risks from having assets and liabilities denominated in foreign currencies (Bradley and Moles, 2012). These fluctuations bring increased uncertainty to traders; this risk may influence the volume of international trade. Foreign exchange risk management is thus crucial for companies frequently trading in the international market either as multinationals or simply involved in import and export trade.

Foreign exchange rates and inflation rates in Kenya over the last two decades have been characterized by volatility which creates uncertainty in the investment market. Prediction of the future rates for these two variables is made difficult both in the short and long-run by the constant fluctuations causing uncertainty in the global investment market. This uncertainty implies that potential international businesses are naturally exposed to exchange rate risk if they are to invest in Kenya (Wanyoike, 2013). This therefore leads to the need to answer the question: what is the effect of exchange rate volatility on project budgets in Kenya. This study therefore seeks to examine how forex fluctuations affects projects budgets, with specific consideration to Prime K projects at the University of Nairobi.

The University of Nairobi has been chosen as the context of the study because it is among the thirteen African universities that attained Medical Education Partnership Initiative (MEPI) award. In the year 2010, The University of Nairobi established the Partnership for Innovative Medical Education in Kenya also referred as (PRIME-K) in partnership with two of its longstanding training associates, the University of Washington (UW) along with the University of Maryland Baltimore (UMB). Its main mission is to strengthen as
well as build the clinical research capacity at the University of Nairobi’s College of Health Sciences (CHS) for enhancement of health outcomes in Kenya (University of Nairobi, 2014).

The program PRIME-K aims at improving the quality of medical education through utilizing innovative skills lab that permit students have hands-on clinical experiencing through employing expert patients and simulation models. Additionally, the faculty has been trained in clinical teaching as well as fresh educational approaches have been thoroughly assessed so as to promote the most effective methods university-wide. Another objective of PRIME-K is to extend the reach of medical training outside Nairobi. The program has developed and executed a decentralized, community-based program that is aimed at optimizing training in primary care in addition to preventative medicine around HIV/AIDS. This objective has been achieved through training as well as accrediting local medical doctors plus specialists at 14 provincial and district hospitals which are rotation sites for medical students, interns, as well as postgraduates. So as to bolster training and care in these decentralized sites, PRIME-K has introduced the employment of mobile phones applications and E-learning systems (UON, 2014).

1.2 Statement of the Problem

A number of projects that have been carried out by non-governmental organizations receive most of their funding in foreign currency denominations so that they can be able to run projects in Kenya. This means therefore that such organizations are likely to be exposed to foreign exchange rate fluctuations (Ngugi, 2009). The organizations are principally exposed to the exchange rate risk in instances when there are delays in releasing funding, when changing the foreign exchange to the expenditure currency, when there are alterations among their budget rate as well as exchange rate, when revaluation of assets is completed using the foreign currency denomination as well as when the interest rates plus inflation rates fluctuate. These variations in exchange rates lead in unexpected gains plus losses for projects. While gains are a welcome windfall for present tight budgets, losses can often be very damaging to the projects when it comes to implementation, scope, quality along with reputation to the financiers.

Previous studies by Hollensen (2007), as well as Schiozer and Saito (2009) focused on exchange risk management practices of donor funded projects. Little has been done with
respect to donor funded projects in Kenya except Ngugi (2007) who found out that the independent variables could describe 81.2% of the exposure to fluctuation in foreign exchange rate on projects that are funded via International Livestock Research Institute (ILRI), implying that 18.8% could be described by other factors that affect foreign exchange rate fluctuations but not interconnected to these variables who conducted. A recent study by Chiira (2009) on foreign exchange risk management practices was limited only to oil marketing companies in Kenya and did not focus on project budgets in Kenya. As such, there is no evidence of local study in Kenya conducted on the effect of foreign exchange rates fluctuations on project budgets. This study therefore sought to fill this gap by seeking to establish the effect of foreign exchange fluctuation on budget of prime K project.

1.3 General Objective

The general objective of the study was to establish the effect of foreign exchange fluctuation on budget of Prime K project.

1.4 Specific Objectives

1.4.1 To determine the exposure to foreign exchange rates fluctuation
1.4.2 To establish the effects of exchange rate fluctuation
1.4.3 To analyze the strategic options available to manage foreign exchange rates risks

1.5 Significance of the Study’

1.5.1 Policy Makers

The study findings are likely to enhance policy formulation to oversee the management of foreign exchange rate fluctuations in projects sponsored by foreign currency via governmental institutions, non-governmental institutions as well as private organizations. They can also adopt the various strategies identified in the study findings in order to manage these risks.
1.5.2 Non-Governmental Organizations

Ideally, study findings would add to academic literature on the field of foreign exchange rate fluctuations exposure and management in Kenya where there is little knowledge about risk management with regards to non-governmental organizations because of the few studies on the subject. NGOs can also adopt the findings of this study to map out ways of enhancing their performances.

1.5.3 Entrepreneurs

This study could also aid entrepreneurs along with research officers requesting for funding from the international donor community so as to run their projects well in terms of knowledge and practice on management of the foreign exchange rate fluctuations and how to use other manners of preventing the effects of the exposure in lieu of hedging.

1.5.4 Researchers and Academicians

Finally, the study findings would provide direction for further research in topics relating to foreign exchange risk fluctuations and management in non-profit organizations and non-governmental organization, an area that has not been comprehensively researched in the recent past.

1.6 Scope of the Study

The study population was foreign funded PRIME K projects in the period 2011 to 2014. Respondents that were involved in the study were workers at the PRIME K offices as well as secondary sources involving recent records on the manner through which they conduct foreign exchanges. The respondents were a target population of 200 and a sample population of 60 respondents drawn by selecting 30% of the total population. The study was conducted from the month of September 2014 to March 2015 with the location being Nairobi University where all the coordination of the project emanates.
1.7 Definition of Terms

1.7.1 Fluctuation: It is defined as the change or variation in a quantity over time (Glaum, 2010)

1.7.2 Budget: It is a quantitative appearance of a plan for a distinct period of time. It may entail planned sales volumes plus revenues, assets, costs and expenses, resource quantities, liabilities, and cash flows (Lessard, 2009).

1.7.3 Exchange rate fluctuation: It is defined as the exchange rate fluctuation is the alterations in value of one currency against another currency as a result of various economic factors. In simple terms, it is the value of one currency will be appreciated amidst another if the demand for that particular currency is higher (Choi and Kim, 2009).

1.8 Chapter Summary

Chapter one provides a background to the effect of foreign exchange fluctuation on budget of prime K project, the objectives and research questions. It also defines terms and the contribution it hopes to make. The chapter introduces the topic under study where there is clarity on the manner through which non-governmental organizations get their funding in foreign currency denominations so as to fund the projects. The organizations are exposed to the effects of foreign exchange rate fluctuations. Some of the reasons that expose the organizations to the fluctuations in the exchange rate include delays in releasing funding, in the process of changing the foreign exchange to the expenditure currency. The second chapter provides a detailed analysis of the review of literature with specific consideration to the research objectives adopted in this particular study. The third chapter provides the research methodology which the researcher used for the study while the fourth chapter presents the results and findings. The fifth chapter presents a summary of the findings as well as the discussions with relevance to the literature that was reviewed. It gives the conclusions drawn from the study as well as recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature on the basis of the research objectives that the researcher sought to address. The review is viewed to be very meaningful considering that the research findings will be compared to the literature reviewed in order to provide conclusions and recommendations relevant in this study. The literature will seek to identify the loopholes in the existing literature that can be addressed during the course of the research, majorly, using the results from the primary research and addressing the problems.

2.2 Exposures to Foreign Exchange Fluctuations

Generally, firms are exposed to three types of foreign exchange risk: transaction (commitment) exposure, economic (operational, competitive or cash flow) exposure and translation (accounting) exposure. Transaction risk occurs where the value of existing obligations are worsened by movements in foreign exchange rates. Economic risk relates to adverse effect on equity/income for both domestic and foreign operations because of sharp, unexpected change in exchange rate. Translation risk is also related to assets or income derived from offshore enterprise (Glaum, 2010).

Risk exchange fluctuations always expose majority of the firms to foreign exchange risk. In addition most of the economies are therefore becoming more and more open when it comes to international trading which is constantly growing and as a result firms operating in such an environment become more exposed to foreign exchange rate fluctuations. Firms involved in international trade are subject to transaction risk arising from payables and receivables in foreign currencies. Firms involved in international trade are also subject to transaction risk arising from payables and receivables in foreign currencies. Also, multinational firms with operations in several countries will have translation risks from having assets and liabilities denominated in foreign currencies (Bradley and Moles, 2012). These fluctuations bring increased uncertainty to traders; this risk may influence the volume of international trade. Foreign exchange risk management is thus crucial for
companies frequently trading in the international market either as multinationals or simply involved in import and export trade.

2.2.1 Transaction Risk Exposure

Transaction risk is that type of exposure that mainly comes about as a result of organization trading or doing business with each other while at the same time engaging in borrowing or lending activities using a foreign. This can also take place when organizations engage in the selling of fixed assets of their subsidiaries that are located in a foreign country. Transaction risk exposure occurs normally through the involvement of time decay especially when this happens between the time when this transaction is carried out and when the payment is received by the other organization. It is during this period of time where it is obvious that exchange rates is likely to take place without doubt change and therefore expose the majority of these organizations to risk. Such kind of occurrences can take both the negative and the positive dimension. Transaction risk is mainly characterized by the longevity of time especially so when the time consideration is long if it is compared to other types of risk exposures such translation exposure or the operating exposure. According to Lessard (2009), nominal exchange rates normally adjust in the long run in order for it to be able to offset cumulative differences in foreign countries’ rates of inflation. This normally occurs in order to enable the acquisition of foreign currency in a given country on a certain date in the future will differ from its anticipated value.

Choi and Kim (2013) is of the opinion that in most occasions this type or risk can be visible through a number of changes in the organization. In most circumstances such changes are not foreseen especially when they involve changes that are not expected such as the ones involving real exchange rates. Such occurrences can go a long way in enhancing the chances of an organization being exposed to risk in different markets for instance the domestic as well as the international types of markets. Choi and Kim (2013) further brings into fray the element of organizations operating in two distinct markets that are situated in different jurisdictions which without doubt exposes an organization to foreign exchange risks. Choi simply made use of descriptive research design however this study will also involve inferential statistics.
Finally it has been established that indeed organizations that operate in an environment where there is operation exposure to foreign exchange it goes without doubt that real exchange rates as well as forex fluctuations are the main consideration for these firms. It goes without saying that managers in a number of organizations have to put into consideration the scope of such exposures to ensure that there is enough cash flow in the organization as well as the structuring of operations in a manner that facilitates proper conduct of the organization operations so as to enhance the competitiveness of the organization (Srinivasulu, 2010). In the event that the management has put in place measures to restore the competitiveness of the organization, then it follows that suppliers as well as customers will be towed in the same direction and this will also bring about the sustainability of such competitiveness of the organization (Loderer and Pichler 2009). It goes without saying therefore that indeed this type of exposure can be well dealt with, but the challenge however is to ensure that the operating position of the company is kept a manageable level so as to cushion the organization to this type of risk.

2.2.2 Economic Exposure

This type of exposure is mainly concerned with the measurement of the change that occurs in the net present value of the firm. Additionally these changes occur as a result changes that occur in the future cash flows of the firm from the unexpected change in the rates of exchange. According to Choi and Kim (2011) future cash flows can be divided into two very essential components these are: cash that is paid to organization as a result of engaging in contractual agreement, this also includes cash that comes about as a result of anticipated future transaction. A number of scholars and researchers have put forward the point that indeed economic exposure is comprised of the transaction exposure itself. This occurs as a result of this type of exposure being considered to be what contributes to the exposure of economic risk and is also composed of future cash flows that simply come about as a result of the contractual commitments especially in the event that the currency is non-dominant in any way. This is key to the success of an organization in the prevailing circumstances.

Choi and Kim (2011) however argue for the need to have a clear distinction between transaction exposure and economic exposure. His argument is mainly focused on the idea that when a firm is exposed to transaction exposure it entails the knowledge of the
amounts that are likely to be issued out to the suppliers or which is received from customers who are known to the business. In transaction risk exposure the amount of money given out to suppliers amounts are considered to be very much uncertain and are therefore seen to be mainly based on nothing more when compared to the initial estimates. Economic exposure is therefore considered to be very key when it comes to future cash flows especially in consideration to the future effect of foreign exchange changes as well when it goes a long way to enhance the liquid position of an organization (Loderer and Pichler 2012).

Economic risk also occurs in organizations that trade in more than one country and therefore they are likely to make sales in different countries. In the event that this is the case, chances are high that the cost versus sales figure if indeed it is in different currencies will result in such economic risk. In such a case, it is evident that changes that will occur in a foreign exchange rate will without doubt affect the competitive position of such an organization. It follows therefore that profits are likely to dwindle in the event that the cost currency which in this case was the dollar, appreciates against the sales currency which in this case was the shilling. In such a scenario it indeed is very much expensive to purchase materials however it becomes very cheap to sell finished commodities (Srinivasulu, 2010). Such occurrences are likely to affect the expected future cash flows and in the long run they will without doubt affect the value of the firm.

Another essential aspect that relates to the organization being exposed to economic exposure the element of changes in prices that go a long way to influence the cash flow position of an organization. This also is the case when an organization experiences forex volatility (Loderer and Pichler 2012). It goes without saying that organization cash flows are also influenced by other factors that are likely to expose the organization economic risk. These factors range from issues to do with political instability external shocks as well as high inflation rates which go a long way in affecting currency movements especially in the event that the organization having no physical dealings (Lessard, 2009).

### 2.2.3 Translation Exposure

Transaction risk exposure can be well regarded to be that particular kind of risk that is a product of a firm being exposed changes in financial statements from one currency to another. When a firm begins the process of consolidation of the financial statement of
all its foreign subsidiaries, it goes without saying that there is need for such a firm to go further and make a presentation of its final reports to its shareholders. In this regard therefore there is need for such numbers in the financial statements to be expressed in one currency (Lessard, 2009). Additionally there is need for organizations to consider denominated assets and liabilities as well as revenues. In the same regard there is need to consider translating the organization costs need into one basic currency. Choi and Kim (2011) are of the opinion that organization having these currency in e denomination makes it easy for an organization to clearly cushion itself from changes in the translation exposure because it is only through such translations that an organization is exposed to risks of translation exposure. In this regard therefore in the event that an organization makes the conversion at a new foreign exchange rate, it goes without saying that such an organization will experience exchange rate losses or profits.

2.3 Effects of Foreign Exchange Fluctuations

Foreign exchange rate volatility and its behavior is and will continues to remain as a subject of discussion for a very long time. This has drawn in much attention from various quotas ranging from scholars, researchers as well as academicians who have sought to carry out a number of studies on this interesting area of research. Majority of the studies conducted on forex volatility have mainly focused on the use of the ARCH-GARCH framework which was first brought into fray by one Engel (1982) and which was later developed by Bollerslev (1986). What is interesting about most of these studies is that as much as there are many studies conducted in this area, apparently none of them has reached a conclusive argument. Adjasi and Biekpe (2005) for instance sought to examine the main reason as to why forex volatility influences stock prices. Their study sought to examine how stock prices relate to exchange rate movement in African countries such as South Africa, Ghana and Kenya. This study employed A VAR model which was properly set out in a bid to provide an explanation of the nature of the relationship. It was established in this particular study that indeed market prices are not significantly related to the exchange rates in African countries.

Another study was carried out by Todani and Munyama (2005) in order to examine the relationship between exchange rates and country exports in South Africa. This study however made use of the ARDL bounds testing procedure while making use of quarterly
data. The study was able to establish that indeed there was a significant relationship between exchange rate variability and aggregate when it comes to South African exports.

Todani and Munyama (2010) went a step further in examining the relationship between exports in South Africa and exchange rate volatility. This particular study made use of the moving average standard deviation as well as the GARCH (1, 1). This was adopted simply to be able to enable effective measurement of the variability. In their findings the study was able to bring about a revelation of how exports in South Africa have significant relationship with exchange rate volatility.

In the same line of thought, Obadan (2009) carried out a study seeking to examine the nature of the relationship between foreign exchange rate volatility and stock prices in Nigeria. It was interesting to see that indeed his study established that foreign exchange rate plays an essential role when it comes to connecting the price system in different countries and this therefore enables traders to directly make comparisons on the price. His study therefore came up with a conclusion of how exchange rate positive and strongly influences imports as well as exports of the concerned countries. This comes as a result of relative prices of goods. Their study went further to conclude that counter- inflationary policy can be well dealt with by exchange rate. This comes about as a result of the basic make-up model of pricing. This can also be brought about in the presence of nominal wages which are very much are visible, in the event that an organization strives to adjust to price changes. In the same regard this comes about in the event that the local currency depreciates as a result of pressure mounting from inflationary expectations. Ideally what happens is that information is conveyed via exchange rate movements an event that affects the local currency movements as well and thus bringing about risk exposures.

In another study that was carried out by Pilinkus and Boguslauskas (2009) to examine the relationship that exists between macroeconomic variables and the stock prices, it was established that indeed unemployment rate, exchange rate, as well as short-term interest rates negatively influence stock market prices. This study unlike the previous ones, adopted the impulse response function so as to be able to test the existence of the short-run relationship.

Adebiyi (2009) also sought to examine the influence of exchange rate volatility in Nigeria stock exchange. His study however adopted the vector error correction modeling technique which was different from previous studies conducted in Nigeria. His therefore
established that indeed a lasting solution to the problem of achieving a realistic exchange rate is most likely to be found if the root cause of the upward sloping demand curve is found. He was also able to conclude that indeed there is almost vertical supply curve of foreign exchange and this therefore led to the development of a framework that ensures that foreign exchange is money demand for productive purposes.

Muhammad and Rasheed (2011) examine countries in South Asian countries. These countries include India, Pakistan, Sri-Lanka as well as Bangladesh. The interesting this about the study carried by these two researchers is that they were not able to establish any relationship between the variables and therefore they concluded that there exist no significant relationship between stock prices and exchange rates. This therefore confirms findings from previous studies done in the same area.

Sekmen (2011) further sought to examine the relationship between exchange rate volatility and stocks in the U.S. In this study therefore the findings revealed that indeed there exists a negative relationship between exchange rate volatility and the affected U.S. stock returns.

Olugbenga (2012) in a bid to examine how stock market prices are influenced by exchange rate fluctuations Nigeria, made use of the Johansen co integration tests. It was established from his study that indeed there exists a significant positive relationship between stock market performance and exchange rate in the short-run. The study further established that indeed there exists a negative significant relationship between exchange rates and stock market performance in the long run.

A study by Agu (2012, in Nigeria which was carried out with the aim of establishing how optimal exchange rates affect economic activities. This study by Agu made use of the Egarch mode. Findings from this study revealed a relationship between real exchange rate (RER) and optimal policies. From a theoretical perspective, it is a generally held view that exchange rate fluctuations are an important source of macroeconomic uncertainty. According to the economic theory such massive exchanges in exchange rate are likely to produce a shift when it comes to stock prices, directly especially when it comes to multinational firms, exporting as well as those companies that are dealing with imports and those firms who import part of their inputs while it appears to be indirectly for other companies.
In a more recent study conducted by Bah and Amusi (2013) seeking to examine the effect of real exchange rate volatility in South Africa. They made use of the ARCH and GARCH and were able to show that indeed real exchange rates in South Africa exerts a significant and negative effect of exports both in the long and short-run. Just like this study the researcher will conducts similar tests in the Kenyan market and examine the differences in these types of markets.

In Kenya, there have been a number studies that have been carried out with a view of examining the nature of the relationship between exchange rate volatility and a number of variables in the economy. A study by Irene (2011) looked at the influence of the forex market in the airline industry in Kenya. It was established that exchange rate movements have an effect on both the prices of imported finished goods as well as the costs of imported inputs, and this therefore influences indirectly those companies who are in competition with such firms. It was revealed that foreign exchange risk negatively influences performance of airlines in Kenya.

Muriithi (2011) further carried out a study seeking to how manufacturing companies are affected by forex volatility. He concluded that Therefore, organization managers are focusing on the importance of risk management techniques to reduce variability of their cash flows from foreign operations due to the fluctuations in foreign exchange rates.

Another study was carried out in the same year by Mongeri (2011) whose focus was on the NSE. The main interest of this particular study was to see how forex volatility influence the NSE. Like previous studies he was also able to establish a positive relationship between forex rates and stock market performance.

Finally, Onyancha (2011) was interested in establishing how performance of international Non-governmental. According to him Firms involved in international trade are subject to transaction risk arising from payables and receivables in foreign currencies. Firms involved in international trade are also subject to transaction risk arising from payables and receivables in foreign currencies.
2.4 Strategic Options to Manage Foreign Risk Exposure

2.4.1 Hedging

Hedging is a practice that has been used differently by different organizations, for various reasons depending on the risk attitude that has been adopted by the specific management team of any particular organization. Ideally the risk attitude takes different forms ranging from simply risk aversion to risk taking. Companies that are mainly concerned with averse of their risk exposures will go a long way in ensuring that they cushion themselves from being exposed to risks that emanate from forex fluctuations. This therefore means that hedging provides them with a very good opportunity to cushion themselves from such exposures. Ideally it needs to be put into consideration that hedging can in some instances become a cost burden to organizations. (Lessard, 2009).

In the quest for risk management depending on the nature and type risk exposure, organizations can chose to firms can adopt either operational or financial hedging approaches. In some instances, organizations can choose a combination of both operational and financial hedging Srinivasulu (2009). On the other hand however there is it has been established that organizations can come up with ways of reorienting the policies of operation that include the element of sourcing as well as choosing the prices for the commodities and also the element of production and financing before choosing the type of hedging approach to adopt. Moffet and Karlsen (2004) are of the opinion that indeed if an organization succeeds in properly choosing these strategies then it goes without saying that such an organization stands a greater chance of dealing with the risks exposure.

2.4.2 Diversification Mergers and Acquisition

Diversification, mergers and acquisitions are viewed to be essential strategies that are considered very essential when it comes to the management of economic risk exposure. This is mainly because such strategies give companies an opportunity to react competitively when there is currency movement. Diversion sometimes involves a firm transforming its modes of production to focus on a totally different form of trade which was initially not part of their business plan. This means that the firm will shift away from the initial set out plan with a view of ensuring
that it develops new ideas so as to enhance its chances of survival in the market. Diversification sometimes is considered to be one of the best ways of dealing with risk exposure because it allows the company to reap from the other benefits that come about as a result of venturing into a new line of production. This therefore goes a long way in enhancing the chances of an organization surviving for a longer period of time.

Firms are advised to diversify the markets for both output and sources of supplies internationally, this is because such strategies can be effective as they be able to be propositioned well in the event that there are risk exposures and they will also have the ability to react to it competitively. Mergers are also considered to be very key when it comes to firms seeking to diversify into new markets. It needs to be acknowledged that indeed mergers come about as a result of two companies coming together to join the forces in order to be able to outdo competition in the market. Ideally these companies, pool their resources together so as to come up stronger and in an excellent position to face the market. In some cases the assets of these companies including the human capital are pooled together so as to have one unique identity which enables such firms to leverage on their resource capabilities in order to attain a competitive edge in the market (Pearce and Robinson, 2007)

A firm can also expand its muscle through acquisitions, which are mainly as a result of one big firm acquiring the assets and ownership the other small firm in order to strengthen its resource base. Such assets include bot not limited to the human capital, technology as well as other financial and non-financial assets (Pearce, and Robinson, 2007). In the event that this happens, it follows that such a firm will be in a better position to leverage on this resource base in order to become very competitive.

Vertical integration is also a type of growth for any organization that seeks to undertake operations at very different stages of production. Vertical integration can either be backwards or forward. This simply means a firm acquiring control of the supply market or otherwise acquiring control of the customers market. Simply put a vertical integration means a firm buying the customers or buying the suppliers so that it remains dominant in the market. Such a move puts the company in control of the suppliers as well as the customer base and thus giving the firm the ability to cushion itself from market shocks.
that might eventually transform into risk exposures (Hungler and Wheelen, 2007). In most similar circumstances backward integration has been viewed as being very dependable as it has enabled the organizations to have a more dependable source of needed raw materials. Forward integration allows a manufacturing company to assure itself of an outlet for its products. On the other hand however forward integration has given such firms the ability to control the manner in which the company products are sold and serviced. In addition this strategy is able to enable the companies to effectively differentiate its products from the ones being offered by other players in the market through forward integration (Hungler and Wheelen, 2007).

2.4.3 Derivative Instruments

Derivative instruments are considered to be very effective instruments when it comes to risk management by a number of organizations in Kenya. Some of these derivative instruments include forward contract, futures contracts, swaps and options. All these derivative instruments are unique in their own way especially with regards to their respective organizations. Srinivasulu (2009) defines a forward contract to be a form of agreement that is relevant in the process of buying while at the same time selling a specific quantity at a at a given time in the future. The forward exchange rate is the predefined rate at which the organization is willing to buy in future.

2.4.3.1 Currency Forwards

A currency forward contract is considered to be one of the very essential derivative instruments that are used to manage risks especially those both in the medium and those that have certainty with regards to their timing. Forward contracts have maturity periods that range from 3 months to 1 years some even go as far as 5 years. In the same regard, there are also a number of risks that come about as a result of forward dealing that therefore makes it very important when it comes to exercise caution. In most cases it has been established that the forward does not necessarily reflect the strength or weakness of a particular currency, this is because it goes a long way to give room for interest rate differentials as well as forward rates which are likely to be more dramatic as compared to spot rates. In the same regard forward contracts are seen to be crucial elements with regards to helping the firms to tackle the issue of risk exposures.

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2.4.3.2 Futures Contract

Nance, Smith and Smithson (2003) defines futures contract as being a crucial instrument that can be used by any organization in a bid to reduce the risk of foreign exchange volatility. Futures are considered to be a key ingredient to any firm that wishes to succeed in the foreign market. This is because it enables such a firm to throw away the fear of getting into losses simply because of risk exposures. A futures contract is considered to be very crucial when it comes to hedging risky assets. It follows therefore in the even that an organization takes out a long hedge futures contract, it is most likely that such an organization will without doubt protect itself from the rise in a foreign currency value and the same way in the event that the organization company takes out a short hedge futures contract. Khoury and Chan (2008) has argued the need for most firms to consider putting this as part of their master plan that will enable them deal effectively with forex fluctuations as this will allow such companies to leverage on their resource availability in order to enhance their competitiveness, not only in the local market but in the foreign market as well.

2.4.3.3 Currency Options

Currency options will and forever remain to be very popular when it comes to the issue of managing forex volatility. This is because they not only offer cushion to firms operating in a foreign market, but they also allow for the flexibility of choice when it comes to whether an organization has intentions of making gains from such options or not (Glaum and Belk 2002). Ideally call options allow firms to cushion themselves against increases in the price of the currency, while on the other hand put options on their part go a long way to protect firms from the drop in price.

2.4.5 Market Development

Market development is considered to be a very crucial strategy especially with regards to the introduction of the company’s new products to very new markets. Market development makes it possible for organizations to venture into new markets that were initially not reachable and this therefore enables such a market to capitalize on these new growth opportunities in order to scale up its production levels and reduce the risk of forex exposures (Burnes, 2004).
A multinational strategy on the other hand is mainly concerned with the commitment to a wide range of what is considered to be an international market. Ideally it has been seen that market development has a significant effect on firm value, regardless of whether the firm is domestically or internationally oriented. This is because growing globalization has encouraged many corporations to extend their businesses beyond the geographical boundaries in order to benefit from competitive advantage and economies of scale. Therefore, organization managers are focusing on the importance of risk management techniques to reduce variability of their cash flows from foreign operations due to the fluctuations in foreign exchange rates. The most important aspect is the realization that indeed the global market strategy can only be viable if the organization operates in foreign jurisdictions (Pearce, and Robinson, 2007).

2.5 Chapter Summary

Extensive studies have been done on the effect of unstable foreign exchange rate on various macroeconomic variables and its effect on the different sectors of the economy. Existing empirical evidence is however mainly based on developed countries whereas a few empirical investigations had been undertaken in African countries like Kenya. There is therefore a gap as far as studying Forex exchange rate volatility versus project performance in Kenya. It is evident that it has not been done fully especially in the emerging markets. This study therefore seeks to fill this gap by examining the effects of foreign exchange rate fluctuation on Prime K project budgets. The next chapter presents the research methodology that was used in the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes the research methods, the forms of data collection, how the data was analyzed, the steps taken to support validity and reliability and the potential risks and ethical issues. In addition, it shows the appropriate methods to collect data that was suitable for the study and how they were used.

3.2 Research Design
A research design provides the framework used as a guide in collecting and analyzing data (Coopers and Schindler, 2008). Yin (2003) points out that case study inquiry is only successful when built on the collection and analysis of data from multiple sources. Furthermore, he maintains that case studies may be based on any mix of quantitative and qualitative evidence. The triangulation of all data, both qualitative and quantitative, should lead to a credible understanding of the case. What follows is the design of this study including the sources of data, the methods to be used in obtaining the data, how the data was analyzed, and how the data exposed a credible representation. Notably, our study adopted a case study research design.

3.3 Population and Sampling Design

3.3.1 Population
The target population was a group from which the researcher wished to draw conclusions and was also interested in the characteristics it possessed. The term population is used to mean target population as they are not easily available (Gravette and Forzani, 2012). Thus, the population of the study included 151 Prime K employees in Nairobi.

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

Cooper and Schindler (2008) are of the opinion that a sampling frame can be described to be that list that contains a number of elements where the sample is actually drawn. Since
it was not possible to collect data from all the projects in Nairobi university only PRIME K projects were used as the frame from which the sample was identified.

3.3.2.2 Sampling Technique
According to Collins and Hussey (2006), a sampling is the technique of selecting elements from the population that represented the population. The study made use of purposive sampling technique as well as simple random sampling to determine a sample by selecting projects that are concerned with the foreign funds as this is was the core subject of the research topic. This is because the purpose of the study was confined to foreign funded PRIME K projects. Random sampling is a technique used to determine the sample of the study when there is a large number of population from which the respondents are to be selected. Admittedly, simple random sampling was used to identify the population sample as it represents a subset of individuals chosen from a large set of population (Lim, 2013). Concisely, random sampling technique was selected for this study since the population is large and therefore all the respondents could be researched upon since it incorporated indicative sampling and random number table which helped to come up with a representative sample of the population. Consequently, the sample developed acted as a representation of the entire population because the study focuses on foreign funded PRIME K projects and not all projects. This approach, therefore, turned out appropriate for this research.

3.3.2.3 Sample Size
According to Thietart, et al., (2001) a sample size is a considered to be a component of the total population where data is collected. A good sample size should provide information that is detailed and comprehensive. Gay (1981) advocates a sample size of 30 and above or 10% of the accessible population, as adequate as a rule of thumb and the sample size considered well above the minimum. The sample size for the study was fifty respondents a 50% representation of the target population. This is significant in determining patterns concerning the various factors being investigated. The choice was based on the fact that the population is homogeneous and variations in the workforce of the company are less likely to determine their responses.
Table 3.1: Sample Size

<table>
<thead>
<tr>
<th>Department</th>
<th>Distribution</th>
<th>No. of Employees</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Budget</td>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Treasury</td>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>50</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

Primary data was collected using a semi-structured questionnaire. The questionnaire was divided into two parts and was administered by visiting the various respondents and requesting them to fill it out. The study also used secondary data from books, journals and past research projects related to the problem under study. The research instrument was pilot tested with a small representative sample before being subjected to the collection of the necessary data. This was necessary because it helped in finding out if indeed the tool could collect the necessary data. This was also because it was not possible to foresee all the potential misunderstandings or biasing effects of the questions at a glance. It also facilitated in ensuring the concepts and wordings are perfect.

3.5 Research Procedures

This refers to the process followed in the course of conducting the research project (Bryman and Bell, 2003). The first step was the preparation of the research proposal followed by the determination of the representative sample and estimation of the budget of costs incurred. The data collection instrument was then developed and a pilot exercise conducted to evaluate its effectiveness. The evaluation of the pilot exercise gave leeway to data collection from the field followed by analysis and interpretation. The final step was the drawing of conclusions and making of recommendations coupled with presentation of the findings for implementation to the company.
3.6 Data Analysis Methods

According to Cooper and Schindler (2000), data analysis is developing summaries from the collected data by use of statistical techniques. The data was analyzed in terms of percentages, mean, median and mode and presented in form of charts and graphs to elicit the findings as per the three research objectives. The percentages were used to signify the variation between the various and their presence in the organization. The mean was used to show the magnitude of contributing factors as well as differentiate between the impact of internal and external factors. The mode showed which factors were more prevalent. Inferential statistics in form of regression tables were employed in order to test the relationship between independent and dependent variables in this particular study.

3.7 Summary

This chapter described the methodology that was used in the research. The research applied a descriptive study through a cross sectional case study of Prime K company. The target population was the mainstream employees involved in the core business of the company. Data was collected through self administered questionnaires and analyzed using percentages, mean, mode, medians then presented through graphs and charts. Chapter four presents the study findings and interpretation.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the research findings as per the three research objectives. Section 4.2 presents the background information of the respondents. It captures elements such as level of education, employee department as well as their opinion on the type of funding received by Prime K. Section 4.3 presents findings on exposures to foreign exchange fluctuations; section 4.4 presents findings on the effects of foreign exchange fluctuations; and section 4.5 presents findings on the strategic options to manage foreign risk exposure.

4.2 Background Information

4.2.1 Level of Education

As seen in the Table 4.1, 34% of the respondents had masters degrees, 47% had undergraduate degrees while the remaining 19% had other qualifications including diplomas, certificates. This implies that the research was not restrictive in nature and therefore the findings given gave a true representation of the various levels of education in the organizations in the study.

Table 4.1: Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>23</td>
<td>46</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.2.2 Respondents’ Department

The department of the employees surveyed is provided. A majority of the respondents were in the budgetary department. Specifically, 58% of the respondents were in the budgetary department, 24% were in the finance department, while the 14% were in the treasury department.

Table 4.2: Respondents’ Department

<table>
<thead>
<tr>
<th>Respondents’ Department</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Budgetary</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td>Treasury</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3 Exposures to Foreign Exchange Fluctuations

The first objective of the study was to examine the various types of foreign exchange risk exposure facing Prime K. The following subsection presents findings on the various types of foreign exchange risk exposures and how each one of them affects Prime K.

4.3.1 Exposure to Foreign Exchange Risks

Respondents were first asked to state their opinions on how Prime K is exposed to foreign exchange risk exposure. Figure 4.1, reveals that 55% strongly agreed that they were well aware of foreign exchange risk while 33% agreed they were aware of exposure to foreign exchange risks. On the other hand, 6% strongly disagreed on the exposure of foreign exchange risks, 4% disagreed, while 2% were neutral on how projects at Prime K are exposed to foreign exchange risk.
4.3.2 Transaction Risk Exposure

Figure 4.2 revealed that 4% of the respondents were uncertain that on how projects at Prime K are exposed to transaction risk exposure. The study revealed that 57% of the respondents strongly agreed that Prime K is exposed to transaction risk exposure. Similarly 27% agreed on how projects at Prime K are exposed to transaction risk exposure, 6% strongly disagreed while 6% disagreed.

4.3.3 Economic Risk Exposure

As shown in Figure 4.3, 3% of the respondents were uncertain of how projects at Prime K are exposed to economic risk exposure. Fifty one percent of the respondents strongly agreed on how projects at Prime K are exposed to economic risk exposure. Similarly, 41% agreed on how projects at Prime K are exposed to economic risk, 3% strongly disagreed while 2% disagreed.
4.3.4 Translation Risk Exposure

Figure 4.4 reveals that 3% of the respondents strongly disagreed on how Prime K is exposed to translation risk exposure. Similarly 2% disagreed on how projects at Prime K are exposed to translation risk exposure. On the other hand it was established that 54% of the respondents strongly agreed that Prime K is exposed to translation risk exposure while 41% agreed that projects at Prime K were exposed to translation risk exposure.

4.4 Effects of Foreign Exchange Fluctuations

The second objective of the study was to examine the effects of foreign exchange risk on prime K projects. This subsection seeks to examine the various ways in which foreign exchange risks influence prime K projects. Table 4.3 presents findings on the various effects of foreign exchange risk on prime K projects. A majority of the respondents were in agreement that volatile exchange rates affected the revenue and profits (80%), there is
a relationship between foreign exchange risk and financial performance (77%), foreign exchange fluctuations affects accounting earnings and the market value of the organization (85%), foreign exchange fluctuations negatively affects cash flows (80%), foreign exchange fluctuations leads to deviations from project budgets (80%), foreign exchange fluctuations results in high adjustment costs which affects the performance of projects (80%) and finally there is a relationship between forex volatility and project performance (88%).

Table 4.3: Effects of Foreign Exchange Risk on Prime K Projects

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile exchange rates affect the revenue and profits</td>
<td>49</td>
<td>31</td>
<td>10</td>
<td>4</td>
<td>6</td>
<td>4.1</td>
<td>1.0</td>
</tr>
<tr>
<td>There is a relationship between foreign exchange risk and financial performance</td>
<td>54</td>
<td>23</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>4.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Foreign exchange fluctuations affects accounting earnings and the market value of the organization</td>
<td>64</td>
<td>21</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4.5</td>
<td>1.1</td>
</tr>
<tr>
<td>Foreign exchange fluctuations negatively affects cash flows</td>
<td>49</td>
<td>31</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>4.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Foreign exchange fluctuations leads to deviations from project budgets</td>
<td>47</td>
<td>33</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>4.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Foreign exchange fluctuations results in high adjustment costs which affects the performance of projects</td>
<td>45</td>
<td>35</td>
<td>4</td>
<td>10</td>
<td>6</td>
<td>4.2</td>
<td>1.4</td>
</tr>
<tr>
<td>There is a relationship between forex volatility and project performance</td>
<td>55</td>
<td>33</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>4.1</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Table 4.4 shows that the R square value was .745 while the Adjusted R square was .653.
Table 4.4: Forex Risk and Project Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.801a</td>
<td>.745</td>
<td>.653</td>
<td>3.0005211</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Forex Risk

The ANOVA results in table 4.5 confirm that the model was significant. This is because the F value was significant at 6.811.

Table 4.5: ANOVA Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>64.124</td>
<td>1</td>
<td>54.124</td>
<td>6.811</td>
<td>.003b</td>
</tr>
<tr>
<td>Residual</td>
<td>32.318</td>
<td>49</td>
<td>20.773</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96.443</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Project performance
b. Predictors: (Constant), foreign exchange risk

Table 4.6 reveals that there is a significant negative relationship between project performance of Prime K projects and forex fluctuations. This is because the coefficient was -.514 at P=.000. This implies that project performance is negatively influenced by forex risks.

Table 4.6: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Foreign exchange risk</td>
<td>30.577</td>
<td>15.347</td>
<td>-.427</td>
<td>-.415</td>
</tr>
<tr>
<td></td>
<td>-.514</td>
<td>-.427</td>
<td></td>
<td>2.440</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Project performance

4.5 Strategic Options to Manage Foreign Risk Exposure

The third objective of the study was to examine the various forex risk averting strategies adopted by Prime K. As seen in table 4.7 it is evident that majority of the respondents
were in agreement that short sighted currency derivatives are used to manage risks (71%), hedging is used to manage forex risk at Prime K (68%), diversification of international operations is an important aspect in managing economic exposure at Prime K (80%), there is usefulness in the currency forwards (85%), financial means are more important in managing risks at Prim K (75%), hedging is used at Prime K (73%), operational means are useful in managing operation exposures.

Table 4.7: Forex Risk Averting Strategies adopted by Prime K

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short sighted currency derivatives are used to manage risks</td>
<td>36.0</td>
<td>35.0</td>
<td>13.0</td>
<td>13.0</td>
<td>3.0</td>
<td>3.68</td>
</tr>
<tr>
<td>Hedging is used to manage forex risk at Prime K</td>
<td>42.0</td>
<td>26.0</td>
<td>16.0</td>
<td>13.0</td>
<td>2.0</td>
<td>3.04</td>
</tr>
<tr>
<td>Diversification of international operations is an important aspect in managing economic exposure at Prime K</td>
<td>55.0</td>
<td>25.0</td>
<td>15.0</td>
<td>5.0</td>
<td>0</td>
<td>3.61</td>
</tr>
<tr>
<td>A currency forward contract is particularly useful for exposures that are short to medium term and whose timing is known for certainty</td>
<td>60.0</td>
<td>25.0</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
<td>3.61</td>
</tr>
<tr>
<td>Financial means are more important in managing risks at Prim K</td>
<td>50.0</td>
<td>25.0</td>
<td>13.0</td>
<td>10.0</td>
<td>2.0</td>
<td>3.51</td>
</tr>
<tr>
<td>Operating exposure cannot be quantified properly in order to be hedged by financial means</td>
<td>50.0</td>
<td>23.0</td>
<td>16.0</td>
<td>6.0</td>
<td>3.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Operating exposure is better managed by operational means (i.e. choice of sourcing or production locations, pricing strategy etc.)</td>
<td>51.0</td>
<td>22.0</td>
<td>15.0</td>
<td>6.0</td>
<td>6.0</td>
<td>3.61</td>
</tr>
</tbody>
</table>
4.6 Chapter Summary

Chapter four presented a summary of the results and findings on the basis of the three research objectives. These findings were presented in frequency tables, as well regression tables. The next chapter provides a summary of the findings, coupled with conclusions as well as recommendations.
CHAPTER FIVE

5.0 SUMMARY, DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings as per the three objectives of the study, followed by a discussion of these findings as well as conclusions made with respect to the findings of the study. Finally the chapter will present recommendations of the study.

5.2 Summary

The general objective of the study was to establish the effect of foreign exchange fluctuation on budget of prime K project. The study was guided by the following research objectives: to identify the exposure to foreign exchange rates fluctuation, to assess the effects of exchange rate fluctuation and to analyze the different averting strategies to foreign exchange rates risks.

This research was a descriptive case study of PRIME K funded projects financed in foreign currencies. The study population included all foreign funded PRIME K projects in the period 2011 to 2014. A total of 50 respondents were selected though picked through simple random sampling. They included key respondents or project officers who were believed to have knowledge about the projects they represent. Quantitative primary data was collected through self-administered questionnaires using 'drop and pick later' technique. Frequency distributions and regression analysis was used to analyze the data.

The findings revealed that Prime K is exposed to Foreign Exchange Risks in form of transaction risk, economic risk exposure as well as translation risk. It was also revealed from the study that majority of the respondents were in agreement that volatile exchange rates affect the revenue and profits (80%), there is a relationship between foreign exchange risk and financial performance (77%), foreign exchange fluctuations affects accounting earnings and the market value of the organization (85%), foreign exchange fluctuations negatively affects cash flows (80%), foreign exchange fluctuations leads to deviations from project budgets (80%), foreign exchange fluctuations results in high adjustment costs which affects the performance of projects (80%) and finally there is a relationship between forex volatility and project performance (88%). It was also revealed
that there is a significant relationship between forex risk and project performance of Prime K projects with a beta value of -0.514 and a t value of 2.440 and p value of 0.00

The findings also revealed that a majority of the respondents were in agreement that short sighted currency derivatives are used to manage risks (71%), hedging is used to manage forex risk at Prime K (68%), diversification of international operations is an important aspect in managing economic exposure at Prime K (80%), a currency forward contract is particularly useful for exposures that are short to medium term and whose timing is known for certainty (85%), financial means are more important in managing risks at Prim K (75%), operating exposure cannot be quantified properly in order to be hedged by financial means (73%), operating exposure is better managed by operational means.

5.3 Discussion of Results
5.3.1 Exposures to Foreign Exchange Fluctuations

The study revealed that Prime K is exposed to Foreign Exchange Risks in form of transaction risk, economic risk exposure as well as translation risk. Transaction risk is that type of exposure that occurs mainly as a result of organization trading or doing business with each other while at the same time engaging in borrowing or lending activities using foreign currency. This can also take place when organizations engage in the selling of fixed assets of their subsidiaries that are located in a foreign country. Transaction risk exposure normally occurs through the involvement of time delay this especially happens between the time the transaction is carried out and when the payment is received by the other organization. It is during this period that exchange rates are likely to change and therefore expose the majority of these organizations to risk. Such occurrences can take both a negative and a positive dimension. Transaction risk is mainly characterized by the longevity of time especially when the time consideration is long compared to other types of risk exposures such translation exposure or the operating exposure. According to Lessard (2009), nominal exchange rates normally adjust in the long run in order to offset cumulative differences in foreign countries’ rates of inflation. This normally occurs to enable the acquisition of foreign currency in a given country on a certain date in the future that will differ from its anticipated value.
In the event that the management has put in place measures to restore the competitiveness of the organization, then it follows that suppliers as well as customers will be towed in the same direction and this will also bring about the sustainability of such competitiveness of the organization (Loderer and Pichler 2009). This type of exposure can therefore be well dealt with, but the challenge is to ensure that the operating position of the company is kept at a manageable level so as to cushion the organization from this type of risk.

Additionally the findings, affirm that economic exposure is mainly concerned with the measurement of the change that occur in the net present value of the firm. Additionally these changes occur as a result of changes that occur in the future cash flows of the firm from the unexpected change in the rates of exchange. In such a case, it is evident that changes that will occur in a foreign exchange rate will without doubt affect the competitive position of such an organization. It follows therefore that profits are likely to dwindle in the event that the cost currency which in this case was the dollar, appreciates against the sales currency which in this case was the shilling. In such a scenario, it is very expensive to purchase materials but becomes very cheap to sell finished commodities (Srinivasulu, 2010).

According to Choi and Kim (2003), when a firm begins the process of consolidation of the financial statements of all its foreign subsidiaries, there is need for such a firm to go further and make a presentation of its final reports to its shareholders. In this regard, there is need for such numbers in the financial statements to be expressed in one currency (Lessard 2009). Additionally, there is need for organizations to consider denominated assets and liabilities as well as revenues. There is also need to consider translating the organization costs need into one basic currency. Therefore, in the event that an organization makes the conversion at a new foreign exchange rate, such an organization will experience exchange rate losses or profits. Choi and Kim (2003) however argue for the need to have a clear distinction between transaction exposure and economic exposure. Their argument is mainly focused on the idea that when a firm is exposed to transaction exposure, it entails the knowledge of the amounts that are likely to be to be issued out to the suppliers or which is received from customers who are known to the business. In transaction risk exposure, the amount of money given out to suppliers’ amounts are considered to be very uncertain and are therefore seen to be mainly based on nothing
more when compared to the initial estimates. Economic exposure is therefore considered to be very key when it comes to future cash flows especially in consideration to the future effect of foreign exchange changes as well when it goes a long way to enhance the liquid position of an organization (Loderer and Pichler 2009).

5.3.2 Effects of Foreign Exchange Fluctuations

The study revealed that a majority of the respondents were in agreement that volatile exchange rates affect the revenue and profits, there is a relationship between foreign exchange risk and financial performance, foreign exchange fluctuations affects accounting earnings and the market value of the organization, foreign exchange fluctuations negatively affects cash flows, foreign exchange fluctuations leads to deviations from project budgets, foreign exchange fluctuations results in high adjustment costs which affects the performance of projects and finally there is a relationship between forex volatility and project performance. It was also revealed that there exists a significant relationship between forex risk and project performance of Prime K projects.

The findings agree with Foreign exchange rate volatility and its behavior is and will continues to remain as a subject of discussion for a very long time. This has drawn in much attention from various quotas ranging from scholars, researchers as well as academicians who have sought to carry out a number of studies on this interesting area of research. Majority of the studies conducted on forex volatility have mainly focused on the use of the ARCH-GARCH framework which was first brought into fray by one Engel (1982) and which was later developed by Bollerslev (1986). What is interesting about most of these studies is that as much as there are many studies conducted in this area, apparently none of them has reached a conclusive argument. Adjasi and Biekpe (2005) for instance sought to examine the main reason as to why forex volatility influences stock prices. Their study sought to examine how stock prices relates to exchange rate movement in African countries such as South Africa, Ghana and Kenya. This study employed A VAR model which was properly set out in a bid to provide an explanation of the nature of the relationship. Findings from their study revealed that there is no relationship between stock market prices and exchange rates in African countries.

Another study was carried out by Todani and Munyama (2005) in order to examine the relationship between exchange rates and country exports in South Africa. This study
however made use of the ARDL bounds testing procedure while making use of quarterly data. The study was able to establish that indeed there was a significant relationship between exchange rate variability and aggregate when it comes to South African exports. In a study by Todani and Munyama (2005), the researchers went a step further to examining the relationship between exports in South Africa and exchange rate volatility. This particular study made use of the moving average standard deviation as well as the GARCH (1, 1). This was adopted simply to be able to enable effective measurement of the variability. In their findings the study was able to bring about a revelation of how exports in South Africa have significant relationship with exchange rate volatility.

Obadan (2009) carried out a study seeking to examine the nature of the relationship between foreign exchange rate volatility and stock prices in Nigeria. The study made use of the moving average standard deviation and GARCH (1, 1) as measures of variability. It was interesting to see that indeed his study established that foreign exchange rate plays an essential role when it comes to connecting the price system in different countries and this therefore enables traders to directly make comparisons on the price. His study therefore came up with a conclusion of how exchange rate positive and strongly influences imports as well as exports of the concerned countries. This comes as a result of relative prices of goods. The study concluded that counter-inflationary policy can be well dealt with by exchange rate. This comes about as a result of the basic make-up model of pricing. This can also be brought about in the presence of nominal wages which are very much are visible, in the event that an organization strives to adjust to price changes.

The findings are in agreement with Pilinkus and Boguslauskas (2009) who examined the relationship that exists between macroeconomic variables and the stock prices, it was established that indeed unemployment rate, exchange rate, as well as short-term interest rates negatively influence stock market prices. This study unlike the previous ones, adopted the impulse response function so as to be able to test the existence of the short-run relationship. Adebiyi (2009) also sought to examine the influence of exchange rate volatility in Nigeria stock exchange. His study however adopted the vector error correction modeling technique which was different from previous studies conducted in Nigeria. His therefore established that indeed a lasting solution to the problem of achieving a realistic exchange rate is most likely to be found if the root cause of the upward sloping demand curve is found. He was also able to conclude that indeed there is
almost vertical supply curve of foreign exchange and this therefore led to the development of a framework that ensures that foreign exchange is money demand for productive purposes. In a more recent study conducted by Bah and Amusi (2013) seeking to examine the effect of real exchange rate volatility in South Africa. They made use of the ARCH and GARCH and were able to show that indeed real exchange rates in South Africa exerts a significant and negative impact of exports both in the long and short-run. Just like this study the researcher will conducts similar tests in the Kenyan market and examine the differences in these types of markets.

5.3.3 Strategic Options to Manage Foreign Risk Exposure

The findings revealed that a majority of the respondents were in agreement that short sighted currency derivatives are used to manage risks, hedging is used to manage forex risk at Prime K, diversification of international operations is an important aspect in managing economic exposure at Prime K, a currency forward contract is particularly useful for exposures that are short to medium term and whose timing is known for certainty, financial means are more important in managing risks at Prime K, operating exposure cannot be quantified properly in order to be hedged by financial means, operating exposure is better managed by operational means.

Hedging is a practice that has been used differently by different organizations, for various reasons depending on the risk attitude that has been adopted by the specific management team of any particular organization. Ideally the risk attitude takes different forms ranging from simply risk aversion to risk taking. Diversion sometimes involves a firm transforming its modes of production to focus on a totally different form of trade which was initially not part of their business plan. This means that the firm will shift away from the initial set out plan with a view of ensuring that it develops new ideas so as to enhance its chances of survival in the market. Diversification sometimes is considered to be one of the best ways of dealing with risk exposure because it allows the company to reap from the other benefits that come about as a result of venturing into a new line of production. This therefore goes a long way in enhancing the chances of an organization surviving for a longer period of time.

Firms are advised to diversify the markets for both output and sources of supplies internationally, this is because such strategies can be effective as they be able to be
Diversification, mergers and acquisitions are viewed to be essential strategies that are considered very essential in the management of economic risk exposure. This is mainly because such strategies give companies an opportunity to react competitively when there is currency movement. Vertical integration is also a type of growth for any organization that seeks to undertake operations at very different stages of production. Vertical integration can either be backwards or forward. This simply means a firm acquiring control of the supply market or otherwise acquiring control of the customers market. Simply put a vertical integration means a firm buying the customers or buying the suppliers so that it remains dominant in the market. Such a move puts the company in control of both the supplies as well as the customer base and thus giving the firm the ability to cushion itself from market shocks that might eventually transform into risk exposures (Hungler and Wheelen, 2007). This means that diversification of financing across currencies can be regarded as one among other operational strategy that can be effectively used in the event that the company needs to hedge itself against being exposed to economic risk. This also goes a long way to involve the element of structuring the firm’s liabilities in such a manner that makes it possible to transform the various changes especially with regards to the foreign assets as a result of economic exposure.

The findings agree with Moffet and Karlsen (2004) who affirm that firms are advised to diversify the markets for both output and sources of supplies internationally, this is because such strategies can be effective as they be able to be propositioned well in the event that there are risk exposures and they will also have the ability to react to it competitively.
5.4 Conclusion

5.4.1 Exposures to Foreign Exchange Fluctuations
The study concludes that Prime K is exposed to Foreign Exchange Risks in form of transaction risk, economic risk exposure as well as translation risk. It also concludes that financing time lag or delays in release of funds by donors contribute to exposure with inflation and interest rates accounting as well variation of budget rate from actual rate of exchange notwithstanding conversion rates accounting.

5.4.2 Effects of Foreign Exchange Fluctuations
The study concludes that volatile exchange rates affect the revenue and profits; there is a relationship between foreign exchange risk and financial performance; foreign exchange fluctuations affects accounting earnings and the market value of the organization; foreign exchange fluctuations negatively affect cash flows; foreign exchange fluctuations lead to deviations from project budgets; foreign exchange fluctuations result in high adjustment costs which affects the performance of projects; and there is a relationship between forex volatility and project performance. It is also concluded that there is a significant relationship between forex risk and project performance of Prime K projects.

5.4.3 Strategic Options to Manage Foreign Risk Exposure
The study concludes that short sighted currency derivatives are used to manage risks; hedging is used to manage forex risk at Prime K; diversification of international operations is an important aspect in managing economic exposure at Prime K; a currency forward contract is particularly useful for exposures that are short to medium term and whose timing is known for certainty; financial means are more important in managing risks at Prime K; operating exposure cannot be quantified properly in order to be hedged by financial means; operating exposure is better managed by operational means.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Exposures to Foreign Exchange Fluctuations
The study recommends that managers at Prime K need to clearly set up a special unit to examine the various ways in which foreign exchange exposures occur in Kenya and
therefore prepare the organization to face these exposures especially when sudden changes in the operating environment come into play.

5.5.1.2 Effects of Foreign Exchange Fluctuations

The study recommends that Prime K needs to put into consideration the various effects of forex risk fluctuations such as budget constraints that result in overworking or layoffs of employees during the project period and therefore affect the project quality. The study also recommends the need to put in place measures to eliminate such effects.

5.5.1.3 Strategic Options to Manage Foreign Risk Exposure

It is the recommendation of the researcher that more research be done on the effects of foreign rate risk on project management and focus on the management strategies of these effects on the projects especially in the absence of any hedging strategies. Additionally, these recommended studies should have a wider scope to incorporate diverse population of projects in different sectors of the economy.

5.5.2 Recommendations for Further Studies

Although there are a number of studies that have already been conducted in the area of forex volatility in Kenya, none of these studies have managed to reach a conclusive agreement. There is therefore need for further studies in this area but focusing on other elements of the economy. Additional studies also need to be conducted on the various sectors and industries in Kenya.
REFERENCES


Ngugi J. (2007). *The effects and extent of foreign exchange risk on project management; the case of International Livestock Research Institute*, University of Nairobi, Kenya


Olugbenga, L. (2012). *The Role of Exchange and Interest Risk in Equity*


APPENDICES

Appendix (i): Introduction Letter for Data Collection

P.O. Box 23845-00100
NAIROBI, Kenya
TEL:
Dear Respondent,
RE: PARTICIPATION IN RESEARCH

I am an EMOD student at USIU. I am currently conducting research study entitled “EFFECT OF EXCHANGE RATE FLUCTUATION ON PROJECT BUDGET: A CASE OF PRIME K AT THE UNIVERSITY OF NAIROBI,” as one of the major requirements. I have the privilege to inform you that you are one of the selected respondents to take part in this study.

I will be very glad if you can take 5 minutes of your time to help me fill in this questionnaire to enable me undertake my research.

This research is purely for academic purposes and therefore the information will not be shared to any other institution or body. Should you need a copy of the findings please let me know by indicating on the questionnaire.

I highly appreciate your participation.

Yours Sincerely,

George Wambiri
Appendix (ii): Research Assistant Introduction Letter

My name is __________________ representing Mr. George Wambiri who is pursuing an Executive Master’s for Organization Development degree at United States International University. As part of the university requirement, Mr. Wambiri is required to submit a Research Project on “EFFECT OF EXCHANGE RATE FLUCTUATION ON PROJECT BUDGET: A CASE OF PRIME K AT THE UNIVERSITY OF NAIROBI

Your organization was randomly selected and you were identified as a key informant who can provide reliable and useful information. The information given will be used purely on an aggregated level and for academic purposes only. Mr. Wambiri is grateful for your kind cooperation.
Appendix (iv): Questionnaire

SECTION A: General Details: (Tick in the box)

1. Education Level (please tick in the box)

Secondary level [ ]
Diploma level [ ]
University [ ]
Masters [ ]

2. Respondent’s department .............................................................

Finance department [ ]
Budgetary department [ ]
Treasury department [ ]
Administration department [ ]
Other [ ]

3. Which department or section deals with risk management of projects in the organization?

Finance [ ]
Treasury [ ]
Other [ ]
SECTION B: TO IDENTIFY THE EXPOSURE TO FOREIGN EXCHANGE RATES FLUCTUATION

8. Please select the response the best suits your opinion

| Prime K projects are largely exposed to Foreign Exchange Risks | (1) (2) (3) (4) (5) |
| The economic Environment in Kenya is Risky | (1) (2) (3) (4) (5) |
| Prime K projects are exposed to transaction risk exposure | (1) (2) (3) (4) (5) |
| Prime K projects are exposed to economic risk exposure | (1) (2) (3) (4) (5) |
| Prime K projects are exposed to Translation risk exposure | (1) (2) (3) (4) (5) |

SECTION C: EFFECTS OF FOREIGN EXCHANGE FLUCTUATION ON A COMPANY

9. On the basis of the scale provided please select how you agree with the following choices.

| Volatile exchange rates in Kenya affect the revenue and profits for Prime K Projects | (1) (2) (3) (4) (5) |
| There is a relationship between foreign exchange risk and financial performance of Prime K Projects | (1) (2) (3) (4) (5) |
| Foreign exchange fluctuations affects accounting earnings and the market value of the organization | (1) (2) (3) (4) (5) |
| Foreign exchange fluctuations negatively affects cash flows | (1) (2) (3) (4) (5) |
| Foreign exchange fluctuations leads to deviations from project budgets | (1) (2) (3) (4) (5) |
| Foreign exchange fluctuations results in high adjustment costs which affects the performance of projects | (1) (2) (3) (4) (5) |
| There is a negative relationship between forex volatility and project performance | (1) (2) (3) (4) (5) |
Please list any other effects of foreign exchange fluctuations

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

SECTION D: AVERTING STRATEGIES

10. Please select the one that best suits your organization

<table>
<thead>
<tr>
<th>Hedging is used by Prime K</th>
<th>(1) (2) (3) (4) (5)</th>
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</thead>
<tbody>
<tr>
<td>Derivative instruments are used by Prime K</td>
<td>(1) (2) (3) (4) (5)</td>
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<tr>
<td>Options are used by Prime K</td>
<td>(1) (2) (3) (4) (5)</td>
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<tr>
<td>Diversification is effectively adopted by Prim K</td>
<td>(1) (2) (3) (4) (5)</td>
</tr>
<tr>
<td>Currency forwards are adopted by Prim K</td>
<td>(1) (2) (3) (4) (5)</td>
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<tr>
<td>Prime K has engaged in Market Development</td>
<td>(1) (2) (3) (4) (5)</td>
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Thank you for your participation
Appendix (v): Work Plan

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<tr>
<td>ACTIVITIES</td>
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<tr>
<td>Identifying research topic</td>
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<tr>
<td>Proposal writing</td>
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<tr>
<td>Reviews with supervisor</td>
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<tr>
<td>Proposal Submission</td>
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<td>Proposal presentation</td>
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<tr>
<td>Corrections and amendments</td>
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<td>Data collection</td>
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<tr>
<td>Data Analysis</td>
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<tr>
<td>Preparation of final report</td>
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<tr>
<td>Reviews with supervisor</td>
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<tr>
<td>Printing and binding of the final report</td>
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<tr>
<td>Submission of project</td>
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<tr>
<td>Presentation of project</td>
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Appendix (vi): The Budget

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<td>Amendments</td>
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<td>Data collection and analysis</td>
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<td>Compilation</td>
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<td>Printing and binding of the final report</td>
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<td><strong>TOTAL</strong></td>
<td><strong>69,000.00</strong></td>
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