INFLUENCE OF ENTERPRISE RESOURCE PLANNING SYSTEMS ON PERFORMANCE OF DONOR FUNDED PROJECTS IN KENYA. A CASE OF GEOTHERMAL DEVELOPMENT COMPANY IN NAKURU COUNTY

BY

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2017
DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signature __________________________ Date _________________

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L50/85252/2016

APPROVAL BY SUPERVISOR

This research project report has been submitted for examination with my approval as university supervisor.

Signature __________________________ Date _________________

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DEDICATION

I dedicate this research project report to my loving wife Judith, my daughter Breena and my son Benniah who have been very understanding and supportive during my study period and lastly to the Almighty God for His continuous grace and blessings.
ACKNOWLEDGEMENT

I wish to express my sincere gratitude’s to my research supervisor Dr. Naomi Gikonyo for her valuable guidance, patience devotion and mentorship during this period. I also wish to extend my appreciation to my course mates at the University of Nairobi whom we held discussions, shared ideas, challenged each other and most important learnt a lot together. Further, I wish to acknowledge the entire management of University of Nairobi for provision of conducive learning environment and reference materials. I also thank my employer Geothermal Development Company for granting me permission to attend my classes and also carry out my research project on this esteemed organization. Lastly I thank the respondents for timely response especially in filling the questionnaires that enabled me complete my research on schedule.
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<tr>
<td>ERP’s</td>
<td>Enterprise Resource Planning system</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>SCM</td>
<td>Supply Chain Management</td>
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<td>FA</td>
<td>Financial accounting</td>
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<td>MM</td>
<td>Material Management</td>
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<td>MRP</td>
<td>Material Requirements Planning</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>PM</td>
<td>Project Management</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<td>GDC</td>
<td>Geothermal Development Company</td>
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<td>TOC</td>
<td>Theory of Constraints</td>
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<tr>
<td>DF</td>
<td>Donor Funded</td>
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<tr>
<td>WB.</td>
<td>World Bank</td>
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<tr>
<td>AFDB</td>
<td>Africa Development Bank</td>
</tr>
<tr>
<td>GOK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>ARGeo</td>
<td>African Rift Geothermal Facility</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environment Facility</td>
</tr>
<tr>
<td>GGA</td>
<td>German Geological Agency</td>
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<tr>
<td>KENGEN</td>
<td>Kenya Electricity Generating Company</td>
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<tr>
<td>(KPLC)</td>
<td>Kenya Power and Lightening Company,</td>
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<tr>
<td>KPC</td>
<td>Kenya Pipeline company</td>
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<tr>
<td>NOCK</td>
<td>National Oil Corporation of Kenya</td>
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<tr>
<td>REA</td>
<td>Rural Electrification Authority</td>
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ABSTRACT

Enterprise Resource Planning system plays a major role in the management of project resources. However the management of donor funds by the national or county governments is still a big challenge in Kenya. Financing of vision 2030 flagship projects has attracted different financing models. One of key project by the ministry of energy is the drilling of geothermal energy in Nakuru County. Drilling of Geothermal well is a very expensive undertaking. Although the initial cost of drilling geothermal wells is very high, the benefits accrued outweigh the cost. In real sense, geothermal energy is cheaper compared to other sources of energy. Despite its importance to the economy and natural environment there is little knowledge on the performance of this this capital intensive projects in Kenya and Africa in General. Menengai geothermal project has received billions of shillings through local and international funding, for the exploration and drilling of geothermal wells. This study aimed at establishing the influence of Enterprise Resource Planning systems on the performance of donor funded projects in Kenya, a case of Geothermal Development Company in Nakuru County. Specifically, the study examined the influence of Financial Accounting, Material Management and Project Planning module on performance of donor funded projects in Kenya. The study was guided by the theory of constraints and Theory of project management. A descriptive survey research design was adopted. The target population of this study was all the GDC employees of five departments namely: Finance and ICT, Supply Chain, Project Planning, Corporate Management, Drilling and Infrastructure Development departments who operate Enterprise Resource Planning licenses. The study used a sample size of 89 respondents from the target population using purposive random sampling method. A pilot study was carried out before the main study in order to access the validity and reliability of the research instrument. This was done after obtaining relevant authority to conduct the study. Cronbach alpha coefficient of a range of 0.7 and above was used to measure the reliability of the study. The data was then analyzed using the descriptive and inferential statistics. The descriptive statistics undertaken included means, standard deviations and frequency distributions. The study revealed that Financial Accounting module and Material management module have significant influence on performance of donor funded projects at Menengai Geothermal project. In addition project planning module had a less influence on performance of donor funded project at geothermal development company at Menengai compared to the other two variables. The researcher recommends a further scientific study on Influence of ERP systems in managing Geothermal drilling Operations. The results of this study will be important to Geothermal Development Company (GDC), the government of Kenya as they strive towards providing cost effective and affordable green energy with the aim of fulfilling vision 2030. Equally the donors who have come on board to support the exploration and development of geothermal energy in Menengai Geothermal Prospects. Furthermore, this study will provide literature for scholars for future studies on green cheaper and affordable energy for Kenya.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Enterprise Resource Planning (ERP) systems have been acclaimed by many researchers and literature in different journals and books for its potential to improve business performance within the first three year after adaption. With the development of new and advanced technologies in the global market, many organizations across the world are increasingly adopting the emerging trends to enhance overall performance and improve business competitiveness. ERP systems represents strategic and important information technology (IT) investment for project managers and any organization undertaking complex developments and infrastructure projects in a demanding and dynamic field. According to Baheshti(2011) ERP systems successfully enhance efficiency and improve overall performance of an organization upon adoption.

Over the years, corporations have adopted new technology to integrate business activities in order to achieve both effectiveness and efficiency in their operations. In recent years, many firms locally and internally have invested on ERP systems in order to integrate all business activities into a uniform platform. The implementation of ERP system enables the firm to reduce the transaction costs of the business and improve its productivity, customer satisfaction and profitability. Maiyo (2016) in her study on the influence of Enterprise Resource Planning system in enhancing service delivery and performance of procurement function confirmed that ERP system played a key role. Maiyo (2016) study on the confirmed early finding of a research carried on Taiwanese IT firms. It also provides empirical evidence that the beneficial impacts of
ERP systems on the supply chain do lead to better overall supply chain management (SCM) and performance. It also confirmed that strategic IT planning leads to operational efficiency and better performance in any business. Benefits accrued from adaption of ERP systems can in turn enhance firm performance in the management its resources through the modules purchased especially financial accounting (FA), material management (MM) and project planning (PP) modules respectfully.

According to Rashid at al. (2012) and a report by United Nations (2016), private organizations have taken the lead in adoption of current technologies in management specifically they have embraced the use of ERP systems. Due to increasing global competition in a dynamic business setting, many project managers are now aware of the benefits of Enterprise Resource Planning (ERP) systems. While the internal and external environments are becoming more complex, project executives should consider appropriate ERP System modules to enhance efficiency and performance of funded projects as well as to gain potential competitive advantages in the industry. This can be from similar projects and emerging project trends. (Chang 2011)

Recent studies on determinants of completion of various projects around the globe have identified project personnel, communications, site management, supervision, client competencies, contactor competencies, top management support, project manager’s experience amongst others (Li et al, 2005; Gudiene et al, 2013; Yong, 2013; Chan et al, 2001; Alexandrova et al, 2012; Ondari, 2013). These studies on determinants of completions of projects have mostly focused on developed countries outside Africa. A recent study by Machungu 2012 on the contribution of human factors in the performance of construction projects in Kenya, found out that about 48% of the building projects in Kenya show poor performance in terms of completion time, cost overruns and client satisfaction.
In Kenya, Public organizations especially under the ministry of energy and petroleum have not been left behind in adoption of new technology. ERP systems play a key major role in the management of project resources. Since infrastructure projects are complex and capital intensive, they require financing or funding from different institution. Some of Kenya’s development partners like World Bank (WB), Africa Development Bank (AFDB), and JICAnhave heavily funded and financed many projects initiated by the ministry of Energy and Petroleum. Most of this national projects are spearheaded by parastatals like Kenya Electricity Generating Company (Kengen) Kenya Power and Lightning company (KPLC), Kenya Pipeline company (KPC), National Oil Corporation of Kenya (NOCK)and Geothermal Development Company (GDC), Rural Electrification Authority (REA) just to name a few. Most of this organizations have implemented and adopted ERP system.

Recent studies by Nganga (2013) on factors influencing timely completion of geothermal wells and a study by determinants of timely completion of projects in Kenya on Kenya Power and Lighting Company, and determinant of timely completion of Geothermal well on Geothermal Development Company respectively confirmed that

This study intends to relate ERP systems influence on performance of donor funded project at Geothermal Development Company (GDC) Nakuru. (Chang 2011)

1.1.1 Enterprise Resource Planning

According to Rashid (2012) and Tadinen (2005) Enterprise Resource Planning (ERP) systems are computer-based applications designed to carry major activities in areas such as planning, production and customer service in a coordinated manner. The ERP systems concept was developed in the year 1980 from Material Requirements Planning (MRP) and Manufacturing
Resources Planning (MRP II). The concept targets complex businesses and organizations. According to the two scholars the main idea behind development of ERP systems was the need to take care of the information and technological needs of the complex organizations in a sufficient manner, hence improve and enhance the performance of business productivity, eliminate wastages, improve organizational internal effectiveness and improve inbound and outbound logistics. ERP become more relevant during this time as most organizations were getting more exposed to global competition and getting exposed to complex business environmental conditions such changing customer needs, changing regulations and internal standards (Rashid, 2012). This concurs with a recent survey by Maiyo 2015 on the Enterprise Resource Planning has gained popularity because it is associated with a number of advantages to the organization. Rashid at al. (2012) identified a number of benefits of ERP. These benefits include; reliable information access, reduced data and operational redundancy, timely delivery and cycle time reduction, reduced wastages and costs, improved scalability, improved maintenance, enhanced market access and e-business. According to Umble et al. (2013), ERP leads to improved performance of organizations and projects. He furthers argues that ERP systems improves the financial management, material management, enhances monitoring and evaluation and generally improved performance of organization’s after two to three years of implementation.

In 1989s, Enterprise Resource Planning (ERP) systems have emerged as an enabling technology, which integrates various functional (finance operations, marketing,) information systems into a seamless suite of business applications across the company and thereby, allowed for streamlined processing of business data and cross-functional integration. Thus, ERP systems provide an enticing solution to managers who have struggles with incompatible information
systems and inconsistent operations policies. However, successful implementation of ERP systems requires active participation from senior-level managers from various functional areas so as to delineate its impact on the business level as well as functional level strategies. (Gupta 2014)

1.1.2 Geothermal Development Company

Geothermal Development Company (GDC) is a fully state owned state corporation in Kenya developed based on the government’s policy on energy - Sessional paper No. 4 of 2004, and the energy Act No.12 of 2006. GDC was formed in 1957 with the mandate of harnessing geothermal resources to supplement the traditional hydro-electric power. Among the five mandates of the company are; management of geothermal reservoirs to ensure constant supply of steam for power generation and promotion of alternative uses of geothermal resources other than electricity generation such as; greenhouse heating, drying of grains, pasteurizing milk, cooling and heating of rooms. To achieve its mandate, the company has put into place initiatives to ensure resources are available in the right quantity, quality and time both for its operations and to customers. One such initiative is the use of information system to link the company with its suppliers and customers (Geothermal Development Company, 2016).

1.1.3 Donor funded projects in Africa

A survey by the International Finance Corporation which is the World Bank's private arm, found out that only half of its projects in Africa succeed. In Africa some of the projects funded by the World Bank include; The Chad-Cameroon oil pipeline to the Atlantic Ocean. Its cost was approximately $4.2 billion. When the pipeline was completed in the year 2003 it was the biggest development project in Africa. The project was funded on condition that the money be spent with international supervision to develop Chad. However, President Idris Deby's
government announced in 2005 that oil money would go toward the general budget and the purchase of weapons, or else oil companies would be expelled.

In Lesotho, three financial institutions namely, the World Bank, European Investment Bank and African Development Bank initiated a massive development project dubbed Lesotho Highlands Water Project at a cost of $3.5 billion. The project started in 1986 was to divert fresh water from the mountains to generate electricity for sale to also South Africa. But the electricity proved too expensive for most people, and the diversion of so much water caused environmental and economic havoc downstream. The development fund raised from selling the water was shut down in 2003. The courts convicted three of the world's largest construction firms on corruption charges and the project's chief executive was jailed. Tens of thousands of people whose lives were ruined by the diversion are still waiting for compensation. (World Bank report- 2003)

In Mali the goal in 1932 was to irrigate 2.47 million acres to grow cotton and rice and develop hydropower in the Mali desert. A project dubbed Office du Niger was funded by France at a cost of more than $300 million over 50 years. More than 30,000 people were forced to move to the desert to work on the largest aid project attempted by French colonial authorities. The African workers largely ignored French attempts to change traditional agricultural practices. By 1982, only 6 percent of the region was developed and the infrastructure was falling apart. The World Bank took over the project in 1985 and has shown limited success with rice farming.

A project by the name Roll Back Malaria across Africa was also funded by multiple agencies to the tune of $500 million. Roll Back Malaria aimed to halve malaria incidences in Africa by the year 2010. The program said Africa needed about $1.9 billion a year to slow down the disease,
but by the year 2002 donors had only come up with $200 million a year. By the year 2004 the rate of infection had risen to 12 percent. Experts say donors rarely followed through with pledges and some programs were subject to political considerations, such as what kinds of insecticides to use, whether to buy cheap generic drugs or how much poor people should pay for mosquito nets.

In Kenya’s arid northwest, a project called Lake Turkana fish processing plant was initiated by the Norwegian Government at a cost of $22 million. The project main objective was to provide jobs and create employment for the Turkana people through various economic activities like fishing and fish processing for export. The plant was completed and operated for a few days, but was quickly shut down since the cost of operations and the demand for clean water in the desert were too high. Since the Turkana people are nomads with no history of fishing or eating fish, the project remains a white elephant.

A recent survey by finds that most donors and development agencies have tried to implement the declaration, but still more coordination and harmonization between donors and partners is needed. Two years after signing the declaration, major challenges remain:

i) deepen ownership, to promote partners’ national budgets
ii) strengthen and use country systems
iii) reduce transaction costs of delivering and managing aid
iv) make better use of performance assessment frameworks
v) Define a mutual action agenda (OECD 2006, p.56).
Furthermore, the survey finds that partner countries would like donor practices to change by coordinating between headquarters policies with in-country practices, changing the donor driven development agenda and reducing conditionality

1.2 Statement of the Problem

Since the launch of Vision 2030 flagship projects in Kenya, donor financing and project funding has played a major role in capital intensive projects. Key infrastructure projects have received financing from various sources. Different financiers have supported the Kenyan National government and county governments in their endeavors to make Kenya an industrialized country by the year 2030. Despite the launch of many projects by National and County governments in Kenya, few have been commissioned and many have failed to kick off. This is a clear confirmation that, although many financiers and donors have committed funds to critical infrastructure projects, the failure rate of donor funded projects are high. A study conducted by Mendel (2012) argued that despite the failures of many projects in developing countries there are also successful mega projects. A study in China confirmed that many firms heavily invested in Enterprise Resource Planning (ERP) systems and expected ERP systems to help them gain superior financial performance. Liu L., Miao R., Li C. (2007). Recent studies support scholarly arguments that successful adoption of Information Technology (IT) to support business strategy can help organizations gain superior performance. In the year 2011, Geothermal Development Company (GDC) adapted ERP system to link the all its operations and enhance performance. With adoption of computer system based operations, all procurements and financial transactions were being carried out through computer systems. Since adoption of the Financial Accounting (FA) Material Management (IM) and Project Planning modules the organizations has experienced a lot of challenges. A recent study on the organization by Maiyo (2015)
revealed that the company saw improvement in efficiency and performance of Customer service experience while the company recorded much positive changes in overall performance as a result of the initiative, the management of the company admits that the company could perform better.

Currently, according to Maiyo (2015) study, more than 75% of GDC operations are donor funded. Since geothermal drilling is capital intensive and quite complicated, there is an urgent need for proper allocation and utilizations of the available funds from donors and the national government. Bearing in mind that very limited study if any had been done on ERP system influence on performance of donor funds in the public sector in Kenya especially in the geothermal energy, at the moment it can only be speculated. To the best of the researcher’s knowledge there hasn’t been any research on the influence of ERP system on performance of donor funded projects in Kenya. Thus it is evident that there is a literature gap especially on state corporations especially those that are donor funded. Therefore this research using a case of Geothermal Development Company aimed to fill this gap by investigating and answering the research question; what is the influence of Enterprise Resource Planning system on the performance of donor funded projects in Kenya,

1.3 Purpose of the Study

The study aimed at establishing the influence of enterprise resource planning systems on the performance of donor funded projects in Kenya, a case of geothermal development company in Nakuru County, in Kenya.

1.4 Objectives of the Study

The study was guided by the following objectives
i. To determine the influence of Financial Accounting module on performance of donor funded projects in Kenya.

ii. To assess the influence Material Management module on performance of donor funded projects in Kenya,

iii. To establish how Project Planning module influences performance of donor funded projects in Kenya.

1.5 Research questions

The study was guided by the following research questions

i. To what extent does Financial Accounting module influence performance of donor funded projects in Kenya?

ii. How does Material Management module influence the performance of donor funded projects in Kenya?

iii. How does Project Planning module influence the performance of donor funded projects in Kenya?

1.6 Significance of the Study

This study is intended to identify and establishing the influence of ERP system on performance of donor funded projects in Kenya especially in geothermal drilling. The study findings will therefore go a long way in bridging the literature gap on the influence of Enterprise resource planning systems on performance of donor funded projects especially geothermal drilling field. This study will also identify key challenges and make recommendations to donors, public organizations and the government on policy development and project performance. The findings and recommendations of the study would be useful to GDC, the Ministry of energy and
Petroleum, donors, National and County governments and other Project Managers in making informed decisions relating to performance of ERP system on projects. The findings and recommendations of the study would also be useful to both National and County governments in formulation of policies relating to the role of ICT and more specifically ERP systems in the management of Donor Funded programs.

1.7 Delimitations of the Study

The purpose of this study was to determine the influence of ERP system on performance of donor funded projects in Kenya. Due to the variability of the nature of operations in the state corporations, Geothermal Development Company was used as a case for the study. The study conceptualized ERP system in terms of its uses such as Financial accounting module, Material Management module and Project Planning module. The three dimensions of ERP were individually and collectively related with performance of the donor funded project. The study focused on the three aspects of ERP in GDC. Employees in finance, supply chain, drilling and infrastructure development, project planning and corporate performance departments in the company was involved in the study.

1.8 Limitations of the Study

This study was heavily dependent on a study administered to existing GDC employees and thus there is a probability that they might have been compromised as not many employees would report anything negative in departments they were current working for. The accessibility of data was also a big a challenge due to the fact that many respondents might fear victimization on the basis of exposing geothermal development company secrets and information to the public unintentionally. The researcher assured the respondents of anonymity and that the information
given was used for the purpose of this study only. In addition, the time available for the respondents to fill in the questionnaire was limited. The researcher booked the respondents on time and used the letter of introduction from the University. The researcher employed appropriate research design and data collection techniques to ensure detailed information is achieved on the research area.

**1.9 Basic assumptions**

There are a number of assumptions that the study held constant. First the study was carried out on the assumption that an ERP system modules that manages donor funded projects are the same and public institutions have the same organizational structure. Secondly that the research instruments enabled optimal collection of data that was very pertinent to the research objectives. Thirdly the researcher assumed that the samples respondents were literate enough to answer and respond to the questions contained in the research instrument in tandem to the requirements. Lastly it was believed that the study findings would address the research problem adequately.

**1.10 Definition of significant terms as used in the study**

**Enterprise Resource Planning**

This are a set of software packages used by organizations to manage day-to-day activities of a project, a business or a company. This activities may include including planning, development, sales and marketing, production, financial accounting, material management, procurement, and human resource.
**System software**: This is a collection of computer programs that are designed to operate, run control, and extend the processing capabilities of the computer itself.

**Influence**: This is the power or ability to have a positive or negative effect on someone or something.

**Performance**: It’s the fulfillment of an obligation or ability to accomplishment of a given task measured against preset criterion or known standards of accuracy, completeness, Cost, and time or speed.

**Donor**: A donor is a person, organization or government that donates something voluntarily. Such as money, to a cause or fund

**Technology**: This is the collection of techniques, methods, skills and process used in the production of goods and services or in accomplishing objectives

**Geothermal**: Geothermal energy is the heat from the earth that range from the shallow ground to hot water and hot rock found a few miles beneath the Earth's surface, and down even deeper to the extremely high temperatures of molten rock called magma

### 1.11 Organization of the study

This study was organized into five chapters. Chapter one covered the background of the study, statement of the problem, purpose of the study, objectives of the study and research questions. It
also comprises the significance of the study, scope and limitations of the study, definition of the significant terms and lastly the organization of the study. Chapter two covers literature review pertinent ERP system. Influence on performance of donor funded projects. In this chapter theories and empirical studies are discussed and reviewed as well as conceptual framework. Chapter three outlines the research methodology. Covered in this chapter is the research design, target population, sample size, sampling technique, research instruments, reliability and validity and procedures for data collection and analysis techniques and findings presentation. Chapter four show the findings emanating from the analysis of the collected data. Both descriptive and inferential statistical findings and associated interpretations and discussions are outlined. Lastly chapter five covers summary of the major study findings, it also shows the conclusions deduced from the study findings.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers concepts, theories and empirical studies touching on ERP systems. The chapter also outlines the conceptual framework. Presents the literature will review in this study.

Literature was review in terms of theoretical literature and empirical literature. Empirical literature was review relating each of the research independent financial accounting (FA) and inventory management (IM) and project management modules.

2.2 Performance of Donor Funded Projects

According Adhiambo (2013) study about factors affecting the effectiveness of donor funded projects in promoting development in Kenya, the study recommended the need to embrace modern technology for better performance of projects. The study recommended that the adaption of ICT in order to improve performance and enhance project viability and efficiency. The study further emphasizes that since the costs involved in adopting technology are high, there is a serious need for donor agencies to co-ordinate, monitor and evaluate not only among themselves but with the recipients. Effective co-ordination, management, monitoring and evaluation may help in enhancing performance thus improve efficiency.

The adoption of ERP systems by businesses to interlink internal and external customers. A recent study by Maiyo (2015) and Musyoka & Kwasira (2012), concluded that the supplier interface reduces transaction and lead time. In addition, the two concurred that ICT systems enhances the performance of projects through sourcing of the right product and providing such products in time at the right cost. Further, Maiyo (2015) study found out that the business to
supplier interface facilitates real time flow of information between business and suppliers thereby fostering supplier relations which are very critical in sustained service delivery especially for projects.

2.2.1 Performance of Donor Funded Projects

A recent study revealed that the effectiveness, efficiency, relevance, sustainability, output and the general impact had statistically significant influence on the performance of donor funded projects in developing countries. The findings further revealed that efficiency in the performance of donor funded road projects was not satisfactory; effectiveness had positive influence which could be attributed to the strict guidelines imposed by donors. In addition, they showed that donor funded projects were relevant in the development objectives and goals of Kenya. It was noted that sustainability was not well defined meaning that it did not meet the expectations of the respondents. Findings on the economic impact revealed that donor funded projects preserved a reasonable balance between peoples’ economic aspirations and their sustainable development priorities. Based on the findings of the study, it can be concluded that effectiveness, efficiency, sustainability, relevance and impact all affect the performance of road construction projects positively. The adoption of better mechanisms in the management of these projects could however enhance performance levels. Monitoring of donor funded road construction projects is vital in order to evaluate performance and also aid in determining their successful completion. This study did not include all donor projects and a further study is recommended to include social empowerment projects among others.

2.2.2 Performance of Geothermal Projects

Recent studies predict that the African Rift has a very high potential for geothermal energy in the world. However, only Kenya and Ethiopia have installed geothermal power generating units with a total capacity of more than 500MW. Although geothermal energy is an economically viable in the East Africa, there is an urgent need for a detailed geothermal exploration. The high
cost and risk of exploratory geothermal wells, compounded by institutional, legal frameworks and regulatory barriers, have greatly prevented the exploitation of the green and environmentally friendly source of energy in the region. Although the drilling and exploration of geothermal energy technical know-how is scarce and by all terms not sufficient to serve the African continent, According to Nganga (2013) to overcome these challenges, and to replicate the success of timely completion of geothermal wells, many factors must be considered like the formation of the caldera, procurement process must be enhanced. The formation of African .Rift Geothermal Facility (ARGeo) by six countries namely Kenya Uganda, Ethiopia, Tanzania Eritrea, Djibouti, and Burundi. The ARGeo facility is implemented by the United Nations Environment Programme (UNEP) and the World Bank. The project is executed in partnership with other donor Institutions like UNU-GTP, ICEIDA, the German Geological Agency (BGR) and KfW of Germany among others (Mwangi 2010).

Mwangi (2010) study further argues that although geothermal exploration and drilling started way back in earlier seventies, a few geothermal prospects have been developed to date. Some of the barriers and challenges encountered include financial constraints, legal and regulatory requirements, lack of incentives to stimulate public private partnerships and investments, institutional weaknesses to harness and promote geothermal exploration and development. Others include lack of technical know-how, lack of insufficient information and knowledge on benefits that can be accrued from the development of proposed geothermal energy with traditional sources energy. One of the most critical factor has been ,the difficult to access to foreign funding. The scarcity of financing models by implementing countries including lack of creditworthiness, collateral, and equity among interested project promoters have further hampered or slowed development of geothermal prospects in the greater Rift Valley.
United Nations Environment Programme (UNEP) has been encouraged by Kenya’s plans and real appetite to develop its geothermal resources, and the growing interest by other countries in the greater Rift Valley. In the year 2003, UNEP, the Business Council for Sustainable Energy (BCSE), the US Trade and Development Agency and a number of other US agencies and international organizations, organized an Eastern Africa Market Acceleration Conference in Nairobi, Kenya. The conference brought high-level representatives from Energy Ministries, utilities and geothermal agencies from Kenya, Uganda, Tanzania, Ethiopia, Zambia, Rwanda, Djibouti, Eritrea and Malawi as well as leading representatives from many, bilateral and multilateral organizations and private financing agencies, to explore commercial opportunities for geothermal exploration and development in the region and options for overcoming financial, regulatory and institutional barriers. During this conference it was agreed, that Eastern African Geothermal Development Initiative undertake to develop a more than 1000 MW of geothermal energy by the year 2025. A call was made for technical and financial assistance to achieve this target. The initiative was to be promoted through NEPAD, was to include a risk mitigation fund against drilling risk of geothermal wells, technical assistance, transaction advice services, policy support, and linkage to preferable financing models. These resolution were the basis for the establishment of the African Rift Geothermal Facility (ARGeo) in May 2003. ARGeo project received the Global Environment Facility development funds and was implemented by the United Nations Environment. The project was to take 10 years and was expected to start in 2005. ARGeo however suffered delays and was not approved until late 2009. The project had proposed to a comprehensive program of financial, policy and technical instruments for the promotion of geothermal energy that was to directly support the development of geothermal energy in the African Rift. The project was clearly designed to actively reduce barriers and to
stimulate and facilitate investment through public and private partnership through geothermal drilling risk guarantee fund and a technical assistance program. A pipeline of eligible projects was then developed for each country. Kenya had submitted Longmont prospect as its pipeline project. This may now change as other prospects are now considered of higher priority. Although KfW withdrew its financial support to ARGeo due to some misunderstanding, its interest in supporting geothermal development in the Eastern Africa region did not diminish.

In the year 2010, according to Kessel (2010), KfW with the support of BGR, contracted SKM of New Zealand and GeoT of Germany to design another risk mitigation facility to assist public and private investors in the early stage of geothermal development. The facility available to Kenya, Ethiopia, Rwanda, Tanzania and Uganda. The facility supports surface exploration studies to site wells for drilling of geothermal and provide risk mitigation cover for geothermal exploration and drilling.

2.3 Influence of Financial Accounting Module on performance of donor funded projects

Financial Accounting module mostly includes functionality for general ledger, which is the core of ERP financial management transactions. This module also handles functions for accounts payable and receivable, fixed assets, financial reporting and treasury management. A study conducted by Spano & Bello (2015) on impact of using an ERP system on organizational processes and individual employees revealed that ERP can enhance service delivery among the internal customers (employees). ERP enhances flow of information and improves efficiency and effectiveness in internal business process therefore facilitating employees’ work hence improving their attitude towards work. Organizations decide to implement ERPs solutions to improve the performance of current operations, to integrate data and systems, and to prevent a competitive disadvantage or a business risk from becoming critical (Spano & Bello, 2015). The
study conducted by Zaglago et al. (2013) on the impact of culture in ERP system implementation revealed that successful implementation of an ERP system in any organization greatly influenced the culture within the organization. The implementation and use of Enterprise Resource Planning (ERP) systems raise fundamental questions about the role of accountants in an organization. This case of study here is to attempt to establish the influence of ERP system in an organization funded by different the donors. This is an exploration of conflicting beliefs about the role of management accountants. The role of the financial managers and accountants in a new organization structure will play out during the partially successful attempt to establish the measures and controls in conjunction with a system that is felt to be better and is supported by the requirements of the EU for performance-based budgeting. Despite the forward-looking dispositions of key actors within the organization and from the donors, the role of the financial Managers here became compressed to the traditional one of cost information collector and provider.

2.4. Influence of Material Management module on performance of donor funds

Over the last decade, our world has changed dramatically due to the growing phenomenon of globalization and revolution in information technology. There is tremendous demand on companies to lower costs, enlarge product assortment, improve product quality, and provide reliable delivery dates through effective and efficient coordination of procurement process. To achieve their objectives organizations must constantly re-engineer or change their business practices and employ information technology systems in managing inventory and project procurements. ERP Systems have become more relevant and most organizations are getting more exposed to global competition and getting exposed to complex business environmental
conditions such changing customer needs, changing regulations and internal standards (Rashid, 2012). The need to manage project materials in the most economical and efficient manner.

Enterprise Resource Planning has gained popularity because it is associated with a number of advantages to the organization. Rashid at al. (2012) identified a number of benefits of ERP. These benefits include: reliable information access, reduced data and operational redundancy, timely delivery and cycle time reduction, reduced wastages and costs, improved scalability, improved maintenance, enhanced market access and e-business. According to Umble et al. (2013), ERP leads to improved performance of organizations projects material management. He furthers argues that ERP systems improves efficiency of the general inventory, enhances monitoring and evaluation of stocks, order planning and generally improved performance of organization’s after two to three years of implementation.

2.5. Influence of Project Management module on performance of donor funds

A Study on ‘the effects of Enterprise Resource Planning Systems on Firm’s Performance conducted in Commercial Banks in Kenya revealed that business to business ERP systems provide economical sharing of information between organizations thereby enhancing their operations. For donor funded projects and public organizations, Project Planning module allows the linking of all planned activities and link them to the budget consumption. The efficiency in flow of project planned activities and thorough a network of Work break down structure, all schedules and be monitored through the set milestones. Schedule planning and where services can be offered through online media (Njihia, 2014).

2.6 Theoretical framework
This section presents the theories that guided the study. The study will guided by the theory of constraints, theory of project management

2.6.1 Theory of Constraints

The theory of constraints (TOC) is a management philosophy that was introduced by Elijah M. Goldratt in 1984 in his book ‘The Goal’ (Goldratt, 1989). This theory appreciates that organizations operate in environment of limitations (constraint) and advocates that project managers should focus on effectively managing the capacity and capability of these constraints if they are to improve the performance of their organization. TOC brings on board new management thinking. It brings the following concepts on board; new measuring system for organizational assessment, procedure for continuous process improvement and strategic decision process focusing on global rather than local issues. It also brings insight of advanced method for analyzing the relationships between resources and processes and determining where to focus the company’s efforts, new methods for analyzing policy problems to arrive at simpler solutions; and new management approach for providing strategic and tactical direction (Institute of Management Accountants, 1999). In the current business environment, there is increasing pressure on the need to ensure sustainability, with the scarcity of resources and limitations and constraints within and from outside the organizations, organizations must appreciate the need to make decisions that allow achievement of organizational goals within the capacity of the organization (Maiyo, 2015). Adoption of innovative systems such as ERP requires intensive resources strategic changes within the organization. In addition, adoption of ERP requires training of employees and development of appropriate culture to embrace the change (Balderstone, 2015).
In this study, the TOC is envisaged to bring into understanding that in adoption of ERP systems, project teams must appreciate that the organizations operations ability are limited by factors from within or outside the organizations (constraints) (Ricketts, 2008). Project teams must make the right decisions and adopt the right strategies to as to meet the set objectives and targets in the most efficient way and avoid wasting time on the constraints. Despite the existence of constraints, shareholders will still expect the within the triple constraints.

2.6.2 Theory of Project Management
This theory is a discipline of initiating, planning, executing, controlling, and it also involves project closure. This is to measure and achieve the set specific goals and meet specific success criteria. In practice, project management requires the development of distinct technical skills and management strategies. The primary challenge of project management is to achieve all of the project goals within the given constraints. The primary constraints are scope, time, quality and budget. (Nokes, Sebastian, 2007)

2.7 Conceptual Framework
A conceptual framework is a diagrammatic representation of the perceived relationship between study variables as shown in Figure 2.1. The framework shows that there are three sets of independent variables which include Financial accounting module, Material Management module and the Project Planning module. Performance of donor funded projects is the dependent variable.
Conceptual framework on the influence of Enterprise Resource planning on performance of donor funded projects in Kenya, a case of GDC, in Nakuru County

Independent Variables

- Financial Accounting module
  - Financial planning
  - Budget control
  - Funds control
  - Payments

- Material Management module
  - Order planning
  - Vendor management
  - Inventory management

- Project Planning module
  - Monitoring and Evaluation
  - Quality management

Dependent variables

- Performance of Donor Funded Projects
  - Cost
  - Time
  - Scope

Figure 2.1 Conceptual framework

Source 2017
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that the researcher used in the study. It outlines the research design that guided the study, the study population, sampling technique, and data collection methods and data analysis and presentation techniques.

3.2 Research Design

According to Oso and Onen (2011) research design is the pattern that the research intends to follow or a plan for conducting a research. Also according to Cooper & Schindler (2003), a research design summarizes that essentials of research design as those activities and time based plans; always guided on by the research question; guides the selection of the sources and types of information; a framework for identifying and specifying the relationship among the identified study variables and outlines the actual procedures for every activity.

This study adopted a descriptive research design. A descriptive research is interested in identifying the variables and relationships between the variables; it measures the occurrence of phenomenon without intervening (Hart, 2005). But Kothari (2004) urges that a research design facilitates smooth operation of research activities. This study adopted descriptive research design. Descriptive study determines whether or relationship exists between two or more quantifiable set of variables.

Case study of GDC Nakuru was used as a case for the study since the public corporations are widely distributed across the country and data cannot be practically accessed from all public organizations. The research targeted majorly qualitative data. Qualitative data is a categorical
measurement expressed not in terms of numbers, but rather by means of a natural language description (Mugenda & Mugenda, 2013). Five points Likert scale was used to quantify and facilitate recording of the qualitative data numerically in order to enhance data collection and analysis. The collected data was then analyzed descriptively and inferentially.

3.3 Target Population

This study intended to find out the influence of ERP systems on performance of donor funded projects. Geothermal Development Company, Nakuru was used as a case for this study. All employees of Geothermal Development, Nakuru constituted the target population. The target population included all employees in Finance and ICT, supply chain, Project Planning, Performance Management, Drilling Operations & infrastructure Development departments of GDC, Nakuru. There are 110 employees five departments are presented in Table 3.1.

Table 3.1: Distribution of employees per department in GDC, Nakuru

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of Employees (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Chain</td>
<td>34</td>
</tr>
<tr>
<td>Finance &amp; ICT</td>
<td>40</td>
</tr>
<tr>
<td>Project planning &amp; Performance Management</td>
<td>5</td>
</tr>
<tr>
<td>Drilling &amp; Infrastructure Development (supervisors)</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

Source: Geothermal Development Company (2017)
3.4. Sampling size and Sampling Technique

Where the population is widely distributed, inaccessible or too large, it is appropriate to use part of the study (sample) in the study. In this study, the research intended to sample part of the population to involve in the study. The sampling process was discussed in this section. According to Oso and Onen (2011), sample size is the collection of all members of the population who have the potential of forming the sample. They are member of the population who are likely to be in the sample.

3.4.1 Sample size Determination

Sample is the portion of the population that represents the entire population in the study or selected population members that present the population in the study. To ensure adequate representation of employees in every department, the researcher used stratified random sampling technique to determine sample size for every department. The researcher decided on use 86 percent of the target population as a sample. The sample size was therefore obtained as shown below;

Sample Size (n) = (86/100*110)

= 89 respondents

The formula below was used to determine sample size for every department;

$$nh = (Nh / N) * n$$

Where $nh$ = sample size for stratum h
Nh = the population size for stratum h
N = Total Population Size
n=total sample size.i.e.

Finance & ICT (nh1) = (34/110*89) =30
Supply Chain (Nh2) = \( \frac{40}{110} \times 89 \) = 34
Project Planning (Nh3) = \( \frac{5}{110} \times 89 \) = 4
Drilling Operations & Infrastructure Development (Nh4) = \( \frac{25}{110} \times 89 \) = 21

The distribution of sample elements as presented in Table 3.2.

**Table 3.2: Distribution of Sample Elements**

<table>
<thead>
<tr>
<th>No.</th>
<th>Department</th>
<th>Number of Employees (N)</th>
<th>Sample Size (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supply Chain</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>Finance &amp; ICT</td>
<td>40</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Project Planning &amp; Project Planning</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Drilling Operations &amp; Infrastructure Development (Engineers/ Supervisors)</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110</td>
<td>89</td>
</tr>
</tbody>
</table>

**3.4.2 Sampling technique**

The researcher was employed random sampling technique to select sample elements. Employees who was take part in the study was selected at random and issued with research questionnaires to collect data on the research variables.

**3.5 Research Instruments**

The data collection method for this research was undertaken through the use of the questionnaires. A questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. This research used the structured questionnaires in order to address the specific research objectives. There are reasons on why the structured questionnaires
were used for this study. The reasons include the ease of data collection, cost efficiency, and respondents’ getting a chance to address the questions exhaustively in their own time. Research questionnaires was developed with adequate research items on each indicator in the study. The questionnaires had separate sections for each study variable. The questionnaires was used to collect primary data that was used in the study.

3.6 Pilot Testing

A pilot test was conducted in Geothermal Development Company Nakuru. This was undertaken using 10 respondents which constituted more than 10% of the sample size. The 10% of the sample size was recommended by Mugenda(2003)The selected employees was issued with questionnaires and requested to fill in the questionnaires. For every research variable, data was coded into SPSS

3.6.1 Validity of Research Instruments

Validity is defined as the extent to which data collection method or methods accurately measure what they were intended to measure Saunders et al. (2003). In research, validity has two essential parts: internal and external. Internal validity entails identifying the degrees of the relations between the variables that affect the phenomenon. This was achieved by identifying and eliminating the other non-sensible variables affected the performance of geothermal wells. External validity is the extent and warrant we have to make generalizations from our own studies to the wider population from which our sample was selected.

3.6.2 Reliability of Research Instruments

According to Mugenda &Mugenda (2008), Reliability test measures the degree of consistency with which it measures a variable. To test for reliability of the research instruments, the researcher conducted a pilot test at Geothermal Development Company Nakuru. Data from the
10 questionnaires issued to selected employees in Nakuru offices was coded into SPSS. The study’s reliability was measured using the Cronbach alpha coefficient. The Cronbach alpha coefficient is used to measure the internal consistency of the questionnaire. The Cronbach alpha values range from 0 to 1 with a minimum threshold of 0.7 being used in this study as a measure of the item being reliable.

**Table 3.3 Reliability Test Results**

<table>
<thead>
<tr>
<th>Item</th>
<th>N of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Accounting Module</td>
<td>6</td>
<td>.815</td>
</tr>
<tr>
<td>Material Management Module</td>
<td>8</td>
<td>.796</td>
</tr>
<tr>
<td>Project Planning Module</td>
<td>8</td>
<td>.790</td>
</tr>
</tbody>
</table>

The results in Table 3.3, Cronbach’s Alpha= 0.815, 0.796 and 0.790, for Financial Accounting Module, Material Management module and project Planning Module were all greater than 0.7 implied that the research questionnaires were reliable in collecting research data.

**3.7 Data Collection Procedure**

The data collection procedures refer to the processes that were used for the purposes of collection the data from the field. Research questionnaires were issued to the selected respondents in the study through drop and pick technique. The respondents were allowed ample time to fill in the questionnaires after which the questionnaires were collected for analysis. The researcher first obtained all the necessary authorization letters that is (i) Letter from University of Nairobi identifying the purpose of data; (ii) letter from National Commission of Science, Technology and Innovation (NACOSTI) authorizing data collection in a government installation; and (iii) letter from the management of Geothermal Development Company.
authorizing data collection from the institution. (iv) Letter from Nakuru County commissioner and County Director of Education. The study used the Drop-Off and Pick-Up (DOPU) method self-administration method of data collection where the questionnaire was dropped to the potential respondents and picked up at a later. The DOPU method has been proven to increase the response rate which advised its usage in this study. The DOPU method improves on the response rate as the respondents have sufficient time to address the questionnaires.

3.8 Data Processing and Analysis

Data on the research variables was analyzed descriptively using mean and standard deviation. Relationship between of ERP system modules and its influence on performance of donor funds was analyzed through regression analysis as presented below;

The study guided by the multiple regression models below;

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon \]

Where; Y – Performance of Donor Funds

\( \beta_0 \) - Constant

\( \beta_1 \) to \( \beta_5 \) - Regression coefficients

X1- Financial Accounting module

X2 – Material Management module

X3 – Project Planning module

\( \varepsilon \) - Error term
3.9 Ethical Considerations

The researcher adhered to the ethical consideration of a research as the respondents were advised on the purpose of the study and assured about the confidentiality of their responses and identities. The respondents were informed of their rights to voluntarily participate in the study. Consent was sought from the respondents before questionnaires are administered.
### 3.10 Operationalization of Variables

#### Table 3.4: Operationalization table

<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Variable</th>
<th>Indicators</th>
<th>Measure</th>
<th>Measuremen Scale</th>
<th>Data Collection Tool</th>
<th>Type of Analysis</th>
<th>Tool of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To determine how Account ing Module influences performance of donor funded projects in Kenya</td>
<td>Financial Accounting module</td>
<td>Accountants trained on ERP system Accountants with license and rights ERP Financial controls</td>
<td>No. of staff Trained</td>
<td>-Ordinal</td>
<td>Questionnaire</td>
<td>Descriptive Statistics (mean, frequency distributions, standard deviations)</td>
<td>SPSS</td>
</tr>
<tr>
<td>To what extent does Material Management module influence on performance of donor funded projects in Kenya?</td>
<td>Material Management module</td>
<td>Supply chain staff trained on ERP system Supply chain staff with license and rights Inventory management controls</td>
<td>No. of staff Trained</td>
<td>-Ordinal</td>
<td>Questionnaire</td>
<td>Descriptive Statistics (mean, frequency distributions, standard deviations)</td>
<td>SPSS</td>
</tr>
<tr>
<td>To what extent does Project Planning module influence performance of donor funded projects</td>
<td>Project Planning module</td>
<td>Project Planning staff trained on ERP system No.of staff with license and rights Frequency of updates and reports generated</td>
<td>No. of staff Trained</td>
<td>-Ordinal</td>
<td>Questionnaire</td>
<td>Descriptive Statistics (mean, frequency distributions, standard deviations)</td>
<td>SPSS</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction
This chapter presents the research analysis and the study findings. The study had three objectives; to determine the influence of Financial Accounting module on performance of donor funded projects in Kenya, to assess the influence Material Management module on performance of donor funded projects in Kenya, and to establish how Project Planning module influences performance of donor funded projects in Kenya. This chapter presents findings on the three objectives.

4.2 Questionnaire Response Rate
A total of 89 questionnaires were distributed to respondents to collect data for the purpose of the study. Four respondents were identified as research contacts persons and allowed to follow up on the questionnaires. The contacts were enlightened on the research items to be in a position to guide other respondents where necessary. Airtime and pens were bought for the team to facilitate follow up calls to enhance response rate. All the 89 questionnaires distributed out, all were successfully filled and collected for the purpose of analysis. This presented 100% response rate. According to Nulty (2008) a response rate of 80-85% is adequate for analysis. The collected data was thus adequate for analysis.

4.3 Background Information
To establish the respondents had the ability to answer adequately the research questions, the questionnaires collected data on departments served in, gender, years worked and highest
educational qualification attained by the respondents. The results were as presented in Table 4.1.

4.3.1 Age of Respondents

The respondents were distributed based on gender as presented in Table 4.1

Table 4. 1: Distribution of Respondents based on Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>55</td>
<td>61.1</td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>38.9</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From Table 4.6, 55 (61.1%) were males while 35 (38.9%) were females. The findings indicate that majority of the employees in GDC are males. This could be explained by the nature of operations performed by GDC.

4.3.2 Level of Education

Respondents who took part in the study were distributed based on level of education as presented in Table 4.2.

Table 4. 2: Distribution Based on Education Level Aspects

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diploma</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Degree</td>
<td>76</td>
<td>84.4</td>
</tr>
<tr>
<td>Master and above</td>
<td>13</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 4.2 presents that majority (84.4%) of respondents had a degree as minimum academic qualification and (15.6%) had masters and above. This implies that the respondents had the professional skills to offer the required information.

4.3.3 Years Worked in GDC
The respondents were distributed based on the number of years served in GDC as presented in Table 4.8

Table 4.3: Distribution Based on Years Worked

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>13</td>
<td>14.6</td>
</tr>
<tr>
<td>2-5 years</td>
<td>36</td>
<td>40.4</td>
</tr>
<tr>
<td>5-10 years</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>89</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

From Table 4.8, it is evident that majority of the respondents (45%) had worked in the company for 5-10 years 40.4% had worked in the organization for more than two years, implying that they understood well operations of GDC and were therefore in a position to provide the required data for the purpose of the study.
4.3.4 Distribution of Respondents

Table 4.4: Distribution of Respondents

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Chain</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>Finance &amp; ICT</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>Project Planning and Strategy</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Corporate Performance Management</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Drilling &amp; Infrastructure Develop</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>89</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

From Table 4.9 above, it is evident that majority of the respondents who took part in the study were Finance & ICT, Supply Chain and department. This is represented by the percentages; 39 \% and 31\%. For Finance & ICT Supply Chain departments respectively. This implies that Most ERP system transactions especially the donor funds are mainly managed by Supply Chain department and Finance & ICT departments respectively.

Table 4.5: Distribution Based on Departments

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Chain</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>Finance &amp; ICT</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>Project Planning and Corporate &amp; Performance Management</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Drilling &amp; Infrastructure Development</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>89</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
From Table 4.5 above, it is evident that all respondents who took part in the study interacted with the ERP system. This was represented by the percentages as follows; 39% and 31% for Finance & ICT Supply Chain departments respectively, Project Planning and Strategy 6 %, Corporate Performance Management at 4% and Drilling & Infrastructure Development at 20%. This implies that Most ERP system transactions especially the donor funds are mainly done by Supply Chain department and Finance & ICT departments respectively.

4.4 Descriptive Analysis

Data on the study variables were analyzed descriptively. The research findings were as presented in Tables and percentages.

4.4.1 Financial Accounting Module

The study sought to determine the influence of Financial Accounting module on performance of donor funded projects in Kenya. The findings were as presented in Table 4.5 to table 4.6
Table 4. 6: Frequency Distribution on Financial Accounting Management module

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finance Department employees of GDC Nakuru have been trained on ERP System Accounting module and have Rights and license</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>3.89</td>
<td>1.06</td>
</tr>
<tr>
<td>2. Finance Department employees of GDC Nakuru post all staff payment /transactions of donor funds through ERP System</td>
<td>89</td>
<td>2</td>
<td>5</td>
<td>4.20</td>
<td>0.86</td>
</tr>
<tr>
<td>3. Finance Department employees of GDC Nakuru post all supplier payment /transactions of donor funds through ERP System</td>
<td>89</td>
<td>3</td>
<td>5</td>
<td>4.51</td>
<td>0.64</td>
</tr>
<tr>
<td>4. Finance Department of GDC Nakuru keeps track of all transactions and financial records of donor funds through the ERP System.</td>
<td>89</td>
<td>3</td>
<td>5</td>
<td>4.26</td>
<td>0.72</td>
</tr>
<tr>
<td>5. Finance Department of GDC Nakuru has an interface to links it with both internal and external stakeholders e.g. Banks for any transaction of donor funds</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>4.12</td>
<td>0.98</td>
</tr>
<tr>
<td>6. ERP system Accounting modules are user friendly</td>
<td>89</td>
<td>3</td>
<td>5</td>
<td>4.19</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Valid N: 89
### 4.6 Descriptive Findings on Financial Accounting Management module

#### Table 4.7 Descriptive Findings on Financial Accounting Management module

<table>
<thead>
<tr>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>NS</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finance Department employees of GDC Nakuru have been trained on ERP System Accounting module and have Rights and license</td>
<td>31.1</td>
<td>43.3</td>
<td>14.4</td>
<td>6.7</td>
<td>4.4</td>
</tr>
<tr>
<td>2. Finance Department employees of GDC Nakuru post all staff payment /transactions of donor funds through ERP System</td>
<td>50.0</td>
<td>36.7</td>
<td>6.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>3. Finance Department employees of GDC Nakuru post all supplier payment /transactions of donor funds through ERP System</td>
<td>53.0</td>
<td>30.0</td>
<td>7.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>4. Finance Department of GDC Nakuru keeps track of all transactions and financial records of donor funds through the ERP System.</td>
<td>42.2</td>
<td>41.1</td>
<td>16.7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>5. Finance Department of GDC Nakuru has an interface to links it with both internal and external stakeholders e.g. Banks for any transaction of donor funds</td>
<td>40.0</td>
<td>42.2</td>
<td>12.2</td>
<td>1.1</td>
<td>4.4</td>
</tr>
<tr>
<td>6. ERP system Accounting modules are user friendly</td>
<td>32.2</td>
<td>54.4</td>
<td>13.3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

From Table 4.7, majority of the respondents; 31.1% and 43.3% strongly agreed and agreed respectively that Finance Department employees of GDC Nakuru have been trained on ERP System Accounting module and have Rights and license. More than 86% of respondents agreed that Finance Department employees of GDC Nakuru post all staff payment /transactions of donor funds through ERP System while; 33.8% and 22.5% Finance Department employees of GDC Nakuru post all supplier payment /transactions of donor funds through ERP System. It was evident that more that 40% of respondents strongly agree and 42.2 % agree that Finance Department has an interface to links it with both internal and external stakeholders e.g. Banks for any transaction of donor funds and a combined percentage of 86.6% agreed and strongly agreed that ERP system Financial Accounting modules are user friendly.
### 4.4.2 Material Management Module

#### Table 4.8 Material Management Module

<table>
<thead>
<tr>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>NS</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supply Chain Department employees of GDC Nakuru have been trained on ERP System have ERP Rights / License to operate the System</td>
<td>32</td>
<td>35.6</td>
<td>40</td>
<td>44.4</td>
<td>14</td>
</tr>
<tr>
<td>2. Supply Chain Department employees of GDC Nakuru generate Goods Receipt Notes / Goods Issue Notes accurately and timely for all goods and services provided by suppliers through ERP system for all donor funded materials</td>
<td>33</td>
<td>36.7</td>
<td>46</td>
<td>51.1</td>
<td>11</td>
</tr>
<tr>
<td>3. Supply Chain Department employees of GDC Nakuru process reservations timely and accurate from user departments through ERP system for all donor funded materials</td>
<td>32</td>
<td>35.6</td>
<td>42</td>
<td>46.7</td>
<td>16</td>
</tr>
<tr>
<td>4. Supply Chain Department employees of GDC Nakuru can exchange information with internal and external customers through the ERP system for all donor funded materials</td>
<td>33</td>
<td>35.6</td>
<td>44</td>
<td>46.7</td>
<td>16</td>
</tr>
<tr>
<td>5. Supply Chain Department GDC Nakuru can generate inventory daily records, monthly records, quarterly records and annual records on donor funded project materials from ERP system</td>
<td>33</td>
<td>36.7</td>
<td>44</td>
<td>48.9</td>
<td>11</td>
</tr>
<tr>
<td>6. Supply Chain Department of GDC Nakuru can conduct cycle, monthly stock take or annul stock count through ERP system on donor funded materials</td>
<td>34</td>
<td>37.8</td>
<td>40</td>
<td>44.4</td>
<td>11</td>
</tr>
</tbody>
</table>
7. Supply Chain Department employees of GDC Nakuru offers regular training on use of ERP system

8. ERP system Material management modules are user friendly

From Table 4.7 and Table 4.8, 35.6% and 44% strongly agreed and agreed respectively that supply Chain Department employees of GDC Nakuru have been trained on ERP System Accounting module and have Rights and license. More than 87.7 respondents agreed that Supply Chain Department employees of GDC Nakuru generate Goods Receipt Notes / Goods Issue Notes accurately and timely for all goods and services provided by suppliers through ERP system for all donor funded materials; 35.6% and 46.7% strongly agreed and agreed respectively that Supply Chain Department employees of GDC Nakuru process reservations timely and accurate from user departments through ERP system for all donor funded materials. It was evident that more that 80% of respondents strongly agree and agreed that Supply Chain Department of GDC Nakuru can conduct cycle, monthly stock take or annul stock count through ERP system on donor funded materials. 33.3% strongly agreed while 31.1 agreed that ERP system Material Management module are user friendly.
### 4.4.3 Project Planning module

#### Table 4.10 Project Planning module

<table>
<thead>
<tr>
<th>Statements</th>
<th>SA</th>
<th>A</th>
<th>NS</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project planning department / corporate performance employees of GDC Nakuru have been trained on ERP System Project Planning module and have ERP Rights / License to operates the System</td>
<td>24</td>
<td>26.7</td>
<td>37</td>
<td>41.1</td>
<td>24</td>
</tr>
<tr>
<td>2. GDC conducts Monitoring and Evaluation (M&amp;E) through ERP system</td>
<td>11</td>
<td>12.2</td>
<td>44</td>
<td>48.9</td>
<td>33</td>
</tr>
<tr>
<td>3. GDC uses project module to plan the drilling exercise</td>
<td>26</td>
<td>28.9</td>
<td>34</td>
<td>37.8</td>
<td>25</td>
</tr>
<tr>
<td>4. GDC uses ERP system in measuring performance of the Geothermal project</td>
<td>21</td>
<td>23.3</td>
<td>45</td>
<td>50.0</td>
<td>22</td>
</tr>
<tr>
<td>5. GDC uses ERP system in measuring performance of the staff in Menengai</td>
<td>20</td>
<td>22.2</td>
<td>29</td>
<td>32.2</td>
<td>32</td>
</tr>
<tr>
<td>6. GDC uses ERP system in measuring performance of its equipment’s and machinery</td>
<td>19</td>
<td>21.1</td>
<td>31</td>
<td>34.4</td>
<td>35</td>
</tr>
<tr>
<td>7. ERP system project modules are user friendly</td>
<td>18</td>
<td>20.0</td>
<td>54</td>
<td>60.0</td>
<td>16</td>
</tr>
<tr>
<td>8. External and internal customers get regular and accurate information and updates of GDC and are happy with the services/products they get from ERP system</td>
<td>27</td>
<td>30.0</td>
<td>37</td>
<td>41.1</td>
<td>22</td>
</tr>
<tr>
<td>9. Internal customers of GDC get accurate information services/products they get from ERP system</td>
<td>27</td>
<td>21.1</td>
<td>37</td>
<td>57.8</td>
<td>27</td>
</tr>
</tbody>
</table>
Table 4.10 Descriptive Analysis of Project Planning module

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project planning department / corporate performance employees of GDC Nakuru have been trained on ERP System Project Planning module and have ERP Rights / License to operates the System</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>3.89</td>
<td>0.92</td>
</tr>
<tr>
<td>2. GDC conducts Monitoring and Evaluation (M&amp;E) through ERP system</td>
<td>89</td>
<td>2</td>
<td>5</td>
<td>3.73</td>
<td>0.68</td>
</tr>
<tr>
<td>3. GDC uses project module to plan the drilling exercise</td>
<td>89</td>
<td>2</td>
<td>5</td>
<td>3.92</td>
<td>0.86</td>
</tr>
<tr>
<td>4. GDC uses ERP system in measuring performance of the Geothermal project</td>
<td>89</td>
<td>2</td>
<td>5</td>
<td>3.97</td>
<td>0.73</td>
</tr>
<tr>
<td>5. GDC uses ERP system in measuring performance of the staff in Menengai</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>3.66</td>
<td>0.97</td>
</tr>
<tr>
<td>6. GDC uses ERP system in measuring performance of the its equipment’s and machinery</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>3.71</td>
<td>0.89</td>
</tr>
<tr>
<td>7. ERP system project modules are user friendly</td>
<td>89</td>
<td>3</td>
<td>5</td>
<td>4.01</td>
<td>0.63</td>
</tr>
<tr>
<td>8. External and internal customers get regular and accurate information and updates of GDC and are happy with the services/products they get from ERP system</td>
<td>89</td>
<td>1</td>
<td>5</td>
<td>3.97</td>
<td>0.89</td>
</tr>
<tr>
<td>9. Internal customers of GDC get accurate information services/products they get from ERP system</td>
<td>89</td>
<td>3</td>
<td>5</td>
<td>4.01</td>
<td>0.64</td>
</tr>
</tbody>
</table>
Table 4.12 Descriptive Analysis of Project Planning module

<table>
<thead>
<tr>
<th>N Valid</th>
<th>Project planning department / corporate performance employees of GDC Nakuru have been trained on ERP System</th>
<th>Project Planning Module and have ERP Rights / License to operate the System</th>
<th>GDC conducts Monitoring and Evaluation (M&amp;E) through ERP system</th>
<th>GDC uses project module to plan the drilling exercise</th>
<th>GDC uses ERP system in measuring performance of the Geothermal project</th>
<th>GDC uses ERP system in measuring performance of the staff in Menezai</th>
<th>ERP system project modules are user friendly</th>
<th>External and internal customers get regular and accurate information and updates of GDC and are happy with the services/products they get from ERP system</th>
<th>Internal customers of GDC get accurate information services/products they get from ERP system</th>
<th>Comment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
<td>89</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>.922</td>
<td>.687</td>
<td>.869</td>
<td>.730</td>
<td>.976</td>
<td>.897</td>
<td>.631</td>
<td>.898</td>
<td>.648</td>
<td></td>
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<tr>
<td>1</td>
<td>2</td>
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<td>1</td>
<td>3</td>
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<td>3</td>
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</tr>
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<td>5</td>
<td>5</td>
<td>5</td>
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<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 4.9 to Table 4.11, 26% and 41.7% strongly agreed and agreed respectively that Project Planning and Corporate Performance department employees have been trained on the usage of ERP system and have license. Project Planning and Corporate Performance department employees of GDC Nakuru also have Rights and license. More than 50% respondents agreed that Project Planning and Corporate Performance department can generate accurately and timely monitoring and evaluation reports to measure performance of the drilling operations while strongly agreed while 31.1 agreed that ERP system Material Management module are user friendly. From the regression analysis, Table 4.12 was obtained. The table was used to develop the multiple regression model below;
Table 4.13: Table of Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>.883</td>
<td>.406</td>
</tr>
<tr>
<td>Financial Accounting Module</td>
<td>.451</td>
<td>.121</td>
</tr>
<tr>
<td>Material Management module</td>
<td>.163</td>
<td>.102</td>
</tr>
<tr>
<td>Project Planning Module</td>
<td>.210</td>
<td>.076</td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance of Donor Funded projects

From Table 4.13, the following regression model was developed for the study;

\[ Y = 0.883 + 0.451X_1 + 0.163X_2 + 0.210X_3 \]

Where; \( Y \) – Performance of Donor funded Project

\( X_1 \) - Financial Accounting Module

\( X_2 \) - Material Management module

\( X_3 \) – Project Planning Module
CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS & RECOMMENDATIONS

5.1 Introduction
This chapter presents the summary of research findings, research conclusions, recommendations and suggestions for further studies. The sections are arranged based on the three objectives of the study.

5.2 Summary of Findings
Summary of the study findings is presented in this section based on the objectives of the study.

5.2.1 Influence of Financial Accounting module on performance of donor funded projects in Kenya
The first objective of the study was to determine the influence of Financial Accounting module on performance of donor funded projects in Kenya. To achieve this objective, the study sought to establish if GDC was using Financial Accounting module and if so whether Financial Accounting module had significant influence on performance of Donor funds especially in Finance department. The study established that GDC has ERP systems and Finance department staff have has been trained and most of them have ERP system licenses. The study confirmed that all transactions are processed by the Financial Accounting module and management of donor funds is purely through ERP system. Donor funds related transactions are posted on ERP system and the organization has links with financial institution. Finance department employees confirmed that the module is user friendly but required more training to enhance efficiency and performance.
5.2.2 Influence of Material Management module on performance of donor funds

The second objective of the study was to assess the influence Material Management module on performance of donor funded projects in Kenya. The study first established majority of Supply chain department staff had license to use ERP system and had been trained. It was established that the supply chain staff process transactions timely and accurately through ERP system and some senior’s staff can exchange information through ERP system. The study also revealed that Supply chain staff can generate different reports on Donor funded project easily from the ERP system. There the procurement department with user departments. From the response it was also clear that the company experienced improved service delivery, characterized with improved efficiency and effectiveness, enhanced time management and reduced complaints. The study then established that Material Management module played and significant role in influencing the performance of donor funds through the processing of reservation and issuing of materials from stock. Of great importance most respondents confirmed that supply chain department employees confirmed is user friendly but required more training to enhance efficiency and performance of the department.

5.2.3 Influence of Project Planning module influences performance of donor funded projects in Kenya

The third objective was to establish how Project Planning module influences performance of donor funded projects in Kenya. To achieve this objective, the study first determined whether the company had was using Project Planning module and then determined whether the module was used to measure performance of geothermal drilling.

It was evident that the company had the Project Planning module it was used mainly by corporate performance department and project planning to plan the drilling activities. The
company had not used the system for operations and maintenance but for planning. ERP system Project Planning modules were regularly updated to enhance effectiveness, efficiency and were user friendly. The above findings reveal that GDC has adopted strategic and deliberate efforts provides adequate support for the usage of the system to plan, monitor and evaluate performance of donor funds for geothermal drilling. The findings further revealed that Project Planning module has a substantial influence on the performance of donor funded projects

5.3 Conclusions of the Study

From the study findings, the following conclusions were made on the research objectives

5.3.1 Influence of Financial Accounting module on performance of donor funded projects in Kenya

The first objective of the study was to determine the influence of Financial Accounting module on performance of donor funded projects in Kenya. From the research findings, it was concluded that Business to Suppliers Interface has statistically significant influence on Service Delivery. According to Musyoka & Kwasira (2012), to manage business and any project usage of ERP system interface reduces transaction and lead time. In addition, it facilitates sourcing of the right product and providing such products in time at the right cost through comparison from prequalified suppliers. This emphasizes the finding of Maiyo (2015) findings that ERP system enhances service delivery and increases customer satisfaction both internally and externally.

5.3.2 Influence of Material Management module on performance of donor funds

The second objective of the study was to establish the Influence of Material Management module on performance of donor funds. From the research findings, it was concluded that Material Management module has significant influence on performance of donor funds and supply chain department of GDC, the module enhances flow of information and improves
efficiency and effectiveness in internal business process therefore facilitating employees’ work hence improving their attitude towards work (Spano& Bello, 2015). It enhances management of customer complaints thereby reducing customer dissatisfaction as per the earlier findings of Maiyo (2015)

5.3. Influence of the influence of Financial Accounting module on performance of donor funded projects in Kenya

The third objective was the influence of Project planning module on performance of donor funded projects. From the study it was concluded that the project planning module relied heavily on the performance of the financial accounting module and material management module. Thought Project planning module influence was minimal on donor funded projects. It’s a basis ingredient especially for top management.

5.4 Recommendations of the Study

The study makes the following recommendations based on the findings of the study.

i. There is need to train GDC staff on ERP system modules to increase the usage and enhance performance of donor funded projects. This is because more than 90% of the respondents requested for more training on the modules they interact with on a daily basis. Though staff had been trained they felt that the training was not sufficient.

ii. The adaption of ERP system by the organisation was a noble idea but increase efficiency there is need to increase utilization of the system by automating the spares and rig consumable especially drilling materials was appropriate but not modern and there is need for improvement in order to enhance project viability and efficiency. Since the costs involved in improving technology are high, there was need for donor agencies to co-ordinate not only among themselves but with the recipients. Effective co-ordination may help in cost sharing and standardization of supplies.

iii. Project planning Module is one of the most underutilised and key component in
conducting a monitoring and Evaluation of the entire project. There is need for the training of GDC staff on the benefits of Project Planning Module and its utilization for the management of donor funded projects.

5.5 Suggestions for Further Studies

From the study findings; the following areas are recommended for further studies;

1. Influence of ERP systems in managing Geothermal drilling Operations

2. Effectiveness of ERP systems in maintenance and repairs of geothermal drilling Rigs
REFERENCES


Ngigi, A N (2013). Factors Influencing Timely Completion of Geothermal Wells; A Case of Menengai Geothermal Prospects Site In Nakuru County, Kenya.
APPENDICES

APPENDIX I: LETTER OF AUTHORIZATION

Ref. No. NACOSTI/P/17/87662/18010

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Evans Omwanza Nyamweya
University of Nairobi
P.O. Box 30197-00100

NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Influence of Enterprise Resource Planning Systems on performance of donor funded projects in Kenya. A case of Geothermal Development Company in Nakuru County,” I am pleased to inform you that you have been authorized to undertake research in Nakuru County for the period ending 18th July, 2018.

You are advised to report to the County Commissioner and the County Director of Education, Nakuru County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nakuru County

The County Director of Education
Nakuru County
APPENDIX II: PERMIT FROM NACOSTI

THIS IS TO CERTIFY THAT:

MR. EVANS OMWANZA NYAMWEYA
of UNIVERSITY OF NAIROBI, 0-20100
NAKURU, has been permitted to conduct research in Nakuru County

on the topic: INFLUENCE OF ENTERPRISE RESOURCE PLANNING SYSTEMS ON PERFORMANCE OF DONOR FUNDED PROJECTS IN KENYA. A CASE OF GEOTHERMAL DEVELOPMENT COMPANY IN NAKURU COUNTY

for the period ending:

18th July, 2018

Applicant's Signature

Director General
National Commission for Science, Technology & Innovation

Permit No.: NACOSTI/P/17/87662/18010
Date Of Issue: 18th July, 2017
Fee Received: Ksh 1000
APPENDIX IV: TURNITIN ORIGINALITY REPORT

INFLUENCE OF ENTERPRISE RESOURCE PLANNING SYSTEMS ON PERFORMANCE OF DONOR FUNDED PROJECTS IN KENYA. A CASE OF GEOTHERMAL DEVELOPMENT COMPANY IN NAKURU COUNTY

ORIGINALITY REPORT

15%  11%  3%  11%

Similarity Index  Internet Sources  Publications  Student Papers

Submission ID: 867325416
File name: EVANS_O.NYAMWEYA_THESIS.docx (115.26K)
Word count: 10293
Character count: 57142
Appendix III: Research Questionnaire

This questionnaire was seeking on the staff of GDC Nakuru to provide information on the topic “Influence of Enterprise Resource Planning System in Performance of Donor Funded Projects at Geothermal Development Company Nakuru” the information is intended for academic purposes only and will not be divulged to any other person. Please complete all sections of this document. All questions are interrelated and are very important for the study.

PART A: BIO DATA
Kindly Indicate your Department
a) Supply Chain [ ]
b) Finance & ICT [ ]
c) Project Planning [ ]
d) Corporate Performance & Management [ ]
e) Drilling Operations & Infrastructure Development [ ]

1. Kindly Indicate your Gender:
   a) Male [ ]
   b) Female [ ]

2. How long have you worked in GDC?
   a) Less than 1 year [ ]
   b) 2 – 5 years [ ]
   c) 5-10 years [ ]

3. What is your highest educational qualification?
   a) Certificate [ ]
   b) Diploma [ ]
   c) Degree level [ ]
   d) Master and above [ ]
PART B: Financial Accounting Management module

Please tick appropriately your response regarding extent to which **Financial Accounting Management modules** being used in the GDC finance department.

(Use the scale; 5-Strongly Agree, 4-Agree, 3-Not Sure, 2- Disagree and 1-Strongly Disagree)

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Finance Department employees of GDC Nakuru have been trained on ERP System Accounting module and have Rights and license</td>
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<tr>
<td>2. Finance Department employees of GDC Nakuru post all staff payment /transactions of donor funds through ERP System</td>
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<tr>
<td>3. Finance Department employees of GDC Nakuru post all supplier payment /transactions of donor funds through ERP System</td>
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<tr>
<td>4. Finance Department of GDC Nakuru keeps track of all transactions and financial records of donor funds through the ERP System.</td>
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<tr>
<td>5. Finance Department of GDC Nakuru has an interface to links it with both internal and external stakeholders e.g. Banks for any transaction of donor funds</td>
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<tr>
<td>6. ERP system Accounting modules are user friendly</td>
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</tbody>
</table>

General comment on Financial Accounting Module

PART C: Material Management module

Please tick your response on the extent to which the Inventory Management moduleis used in GDC Supply Chain Department. **(Use the scale; 5-Strongly Agree, 4-Agree, 3-Not Sure, 2- Disagree and 1-Strongly Disagree)**

<table>
<thead>
<tr>
<th>Statement</th>
<th>5</th>
<th>4</th>
<th>3</th>
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<tbody>
<tr>
<td>7. Supply Chain Department employees of GDC Nakuru have been trained on ERP System have ERP Rights / License to operates the System</td>
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</tbody>
</table>
8. Supply Chain Department employees of GDC Nakuru generate Goods Receipt Notes / Goods Issue Notes accurately and timely for all goods and services provided by suppliers through ERP system for all donor funded materials

9. Supply Chain Department employees of GDC Nakuru process reservations timely and accurate from user departments through ERP system for all donor funded materials

10. Supply Chain Department employees of GDC Nakuru can exchange information with internal and external customers through the ERP system for all donor funded materials

11. Supply Chain Department GDC Nakuru can generate inventory daily records, monthly records, quarterly records and annual records on donor funded project materials from ERP system

12. Supply Chain Department of GDC Nakuru can conduct cycle, monthly stock take or annual stock count through ERP system on donor funded materials

13. Supply Chain Department employees of GDC Nakuru offers regular training on use of ERP system

14. ERP system Material management modules are user friendly

General comment on Material Management Module

SECTION D: Project Planning module

Please tick appropriately on the following statements about Project Planning module to the extent at which they are correct.

(Use the scale; 5-Strongly Agree, 4-Agree, 3-Not Sure, 2-Disagree and 1-Strongly Disagree)

<table>
<thead>
<tr>
<th>E-Sourcing</th>
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<th>4</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>15. Project planning department / corporate performance employees of GDC Nakuru have been trained on ERP System Accounting module and have ERP Rights / License to operate the System</td>
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<tr>
<td>16. GDC conducts Monitoring and Evaluation (M&amp;E) through ERP system</td>
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<td>17. GDC uses project module to plan the drilling exercise</td>
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<td>18. GDC uses ERP system in measuring performance of the Geothermal project</td>
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<tr>
<td>19. GDC uses ERP system in measuring performance of the staff in Menengai</td>
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<tr>
<td>20. GDC uses ERP system in measuring performance of the its</td>
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</table>
equipment’s and machinery

21. ERP system project modules are user friendly

22. External and internal customers get regular and accurate information and updates of GDC and are happy with the services/products they get from ERP system

23. Internal customers of GDC get accurate information services/products they get from ERP system

General comment on Project Planning module

Appendix IV: Work Plan

<table>
<thead>
<tr>
<th>Period</th>
<th>Task</th>
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</thead>
<tbody>
<tr>
<td>February 2017</td>
<td>Identification and development of research problem and research topic.</td>
</tr>
<tr>
<td>January – March 2017</td>
<td>Writing of the research project and presentation</td>
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<tr>
<td>April 2017</td>
<td>Pilot study and Data collection for the study</td>
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<tr>
<td>May - June 2017</td>
<td>Data entry, analysis and Compilation of the first draft for review. Finalizing on the project.</td>
</tr>
<tr>
<td>July 2017</td>
<td>Project defense</td>
</tr>
</tbody>
</table>