DETERMINANTS OF ENTERPRISE RESOURCE PLANNING IMPLEMENTATION
BY COUNTY GOVERNMENTS: A CASE OF KIAMBU COUNTY KENYA

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DECLARATION

This Research project is my original work and has not been presented to any other university

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This Research project has been submitted for examination with my approval as the university Supervisor:

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ABSTRACT

Recently, there has been a tremendous application of Enterprise Resource Planning systems in large companies and also government institutions and corporations. In developed countries, due to overwhelming challenges that have emanated from the dynamic business environment and hence the need to adopt sophisticated and integrated technological applications off the shelf. Firms have adopted the ready-made information systems rather than their own. On the other hand, developing countries still drags in the adoption of this modern advanced technology, unlike the Western countries who have already gone far ahead. Implementation of ERP systems is essential to organizational functions across the supply chain management, human resource, accounting and finance and project management departments. This is because ERP creates a conducive platform to enhance efficiency and effectiveness in the overall productivity of an organization. This study, sought to assess the factors that affect implementation of ERP systems in county governments. This study therefore was guided by the following objectives; to establish how organization culture influence the implementation of ERP in the Kiambu County Government; to determine the influence of top management support on ERP implementation in Kiambu County Government and to establish how user training and development affect the implementation of ERP in Kiambu County Government. The study applied two theories; accountability theory and organizational culture theory. The study used descriptive research design. The target population was the head of departments and the employees of the human resource, accounting and finance, supply chain management, ICT, land, housing and physical planning. The target population consisted of 238 respondents and out of this the researcher obtained a sample size of 149 respondents. Stratified sampling technique and purposive sampling techniques were used to derive a sample. Data collected was analyzed through the use of a computer application SPSS. The study findings indicated that organizational culture (Beta = 0.310, Sig = 0.009) and top management support (Beta = 0.087, Sig = 0.035) positively and significantly affect implementation of ERP systems while the effect of user training (Beta = 0.138, Sig = 0.112) was positive but insignificant. Based on the findings that organizational culture has a positive and significant effect on implementation of ERP systems at Kiambu County, the recommends that the county government of Kiambu and other county governments need to create a conducive organizational culture that is highly ethic, with good values, procedures and policies which can support implementation of any new technology or policy. The study also recommends that based on the findings that top management support has a positive and significant effect on implementation of ERP systems at Kiambu County, Kiambu County and other counties in Kenya need to ensure that their top management supports organizational activities in terms of optimal resource allocation, activity rescheduling and employee motivation in order to realize a success in implementation of their programmes and policies. The study findings that user training has a positive but not significant effect on implementation of ERP systems at Kiambu County led to the recommendation that Kiambu county and other counties need to enhance user training by conducting more workshops, on the job trainings, seminars and field trips in order to realize the significant benefits of user competence when there is a need to implement a new technology in the organization.
DEDICATION

I wish to dedicate this research project to my dear parents Mr. and Mrs. Francis Macharia who have been of immense help through their support financially, academically and emotionally.
ACKNOWLEDGEMENT

My sincere gratification goes to the Almighty God who guided and blessed the whole process. He gave me wisdom and good health to enable me conclude this project proposal in good time.

Invidiously, I would like to express special and sincere gratitude to each and every one who gave invaluable advice on how to go about this project. Just to mention, I applause the support and guidance accorded by my supervisor Dr. John Kandiri without whom this work would not have been concluded.

Sincere thanks also go to my parent Mr. and Mrs. Francis Macharia for their support both materially and morally during the period of developing this project.

In conclusion, I wish to thank the Department of Public Policy and Administration for initiating the task of developing this project being a partial fulfillment towards the award of Masters of Public Policy and Administration.
# LIST OF ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>MRP</td>
<td>Material Requirement Planning</td>
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<td>MRP II</td>
<td>Material Resource Planning</td>
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<tr>
<td>NACOSTI</td>
<td>National Commission for Science, Technology, and Innovation</td>
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<tr>
<td>IS</td>
<td>Information Systems</td>
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<td>SPSS</td>
<td>Statistical Packages for Social sciences</td>
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OPERATIONAL DEFINITION OF TERMS

**Enterprise Resource Planning systems:** an integration of organization applications or modules that link functional areas from accounting, financial, human resource, supply chain in order to allow free flow of information throughout the whole organization (Rajan & Baral, 2015).

**Statistical Package for Social Scientists (SPSS):** is a software package used for statistical analysis.

**Organization culture:** this is defined as a set of shared assumptions which have worked well and considered valid by a group of individuals which seeks to provide basic solutions to challenges of international integration and external adaptation and it is enhanced through learning of these patterns by means of perception, thinking, feeling and relation (Bellot, 2011).

**Top management support:** this is the extent to which the senior level management comprehends the need to adopt and implement an information system and the degree to which it is involved throughout the activities of the information system (Xia & Chen, 2011).

**User training:** it involves teaching the employees of an organization on how to handle a new system in a manner it was
meant to be executed in order to eliminate doubts, misunderstandings and unnecessary errors and problems

**Devolution:**
a governance system that envisages bringing government services closer to the people and giving them the first say in the running of public affairs, more so those that immediately and directly impact on their lives (Ichijo, 2012).
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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

1.2.1 Enterprise Resource Planning.

Enterprise resource planning (ERP) is defined as a company-wide information system that incorporates major business functions such as accounting, human resources management, production, and marketing. Introducing ERP allows companies to enjoy financial and non-financial benefits, including inventory reduction, data integration, and cost reduction. Initially used for internal integration, ERP is now applied toward external integration with management executive systems and supply chain management. In fact, ERP is increasingly being recognized as a business strategy tool for improving corporate competitiveness, and more and more small- and medium-sized manufacturers have been adopting ERP systems (Choi, 2013).

Enterprise Resource Planning systems is an integration of organization applications or modules that link functional areas of accounting, financial, human resource, supply chain in order to allow free flow of information throughout the whole organization. The motive is to allow a cohesive single system that creates a unique common platform through which is automated in a manner that ensures there is sharing of data and practices that are common in the entire organization. In the event when the organization is in a real-time environment, this integration allows the production and accessibility of information (Shaul & Tauber, 2013). Originally in the private sector, firms have over the time been divided in terms of their functionality especially in areas of accounting and finance or marketing. In a business, to achieve total quality management there is need to address customers’ needs, especially in a dynamic market environment. In ensuring that those
needs effectively have been met, work should flow in the rapid and accurate way in between sections in an organization that is functional (Gharakhani, Rahmati, Farrokhi, & Farahmandian, 2013).

Functions covered by the ERP system include manufacturing, distribution, accounting, financial, human resource management, project management, inventory management, service and maintenance, and transportation, providing accessibility, visibility, and consistency across the enterprise (Gelogo & Kim, 2014). The ERP systems identify and plan the enterprise-wide resources needed to take, make, distribute, deliver and account for customer orders (Monk & Wagner 2012).

Through the use of ERP, an organization engages in flawless transactions. ERP, therefore, improves a firm’s competitiveness and also produces high-value information that is used to attain sustained competitive advantage. Corporate computing with ERP allows companies to implement a single integrated system by replacing or re-engineering their mostly incompatible legacy information systems (Rohde & Zhong, 2014).

The effectiveness and efficiency of business processes are affected by their automation through the use of ERPs. As a result, employees are able to reasonably change their perception of the adoption of business process approach from functionality approach of these large systems that are built as packaged software. The broad application of these set of tools in management involves the ability to provide a linkage of supply chain between suppliers and customers, providing a balance especially in demand and supply, facilitating integration across various disciplines such as marketing, manufacturing, logistics, sales, purchasing, accounting and finance, human resources and operations. In addition, the platform created by these management tools aids in decision making by fostering an environment with the ability to meet the needs of the customers effectively including maintaining high levels of productivity and concurrently reducing costs.
The significant growth of ERP systems has been catalyzed by the need to allow integrations of various systems and their technologies that broaden business functionality due to their modular, integrated and wide enterprise functionality. Processes are automated as a result of this growth where all the functions in an organization become fully integrated in a virtual manner from basic operation to finance and making of reports. The completeness of the integrated system requires the presence of some functional modules which are core in ERP integration (Céu Alves & Matos, 2013). For instance in supply chain management, functions such as planning for materials, managing the supplier and purchase, and management of inventory and materials. In other cases such as human resource management, these functional modules that are core involve the recruitment processes, training, and development, management of employees, compensations and laws governing labor. In accounting and finance the modules that are core include general ledgers, account receivable and payables, accounting for non-current assets, billings and invoicing petty cash management.

ERPs that stress on operational excellence originate from the second generation and they go beyond ERP boundaries due to their importance in adding value in disciplines that even include EAM, SLM, CAD, PM, PLM through their efficiency in processes that have been automated. The functionality identified above in ERP integration allows their use to derive the top and best practices in terms of making fast, analytically efficient and strategic decisions as a result of collaborative measures with other stakeholders. Quality is, however, improved and there are reduced prolonged supply chain cycle’s periods due to the assistance of tools in real-time such as data mining, decision support systems, data warehouse and key performance indicators (Nwankpa, 2015).
Developing countries are often faced with numerous challenges in the adoption of ERP due to an increased need for information technology and management practices to be designed to suit different cultural contexts. (Momoh & Shehab, 2010).

The ultimate goal of the adoption of ERP is to enhance smooth transition that ensures continuous business activities and also deliver opportunities and rewards that greatly contribute to the improved and efficient performance of the organization. However, despite the smooth running due to integration, there is high-risk prevalence due to huge costs, problems, and complications.

The issue of ERP project decisions faces every organization that intends to adopt the systems which are part of the initial stages of implementation. Several factors are considered essential when planning for the adoption of ERP and also the success of the adoption process. Such factors include top management commitment, comprehensive risk management, user support and training and development. Many organizations haphazardly adopt ERP without a proper platform for planning and development and hence they face a problem that negatively affects the organization and employee performance (Rajan & Baral, 2015).

Due to the profound nature of the results of ERP its adoption, the researcher is keenly interested in the factors that influence the implementation. The planning stage is very crucial since it contributes greatly to the outcome success of the transactional information and strategic benefits.

The establishment of the county governments allowed the decentralization of their functions came to its implementation under the Jubilee government from March 2013 (Constitution of Kenya, 2010). It has, however, attracted numerous and humongous public scrutiny with the Members of county assembly accused of embezzling public resources. Overwhelming cases of dwindled funds were reported in their first in an office where they were accused of allocating themselves unaccounted for allowances with huge perks. An audit report by EACC in 2015 revealed that the
precarious and most profound forms of corruption involve favoritism and nepotism during recruitment, shoddy roads/bridges construction and conflict of interest in awarding of County tenders and employment, procurement malpractices through price escalation, bid rigging and splitting of tenders to meet threshold, tampering with clients documents, bribery, theft of revenue collected among others (Safina, 2015).

According to the report released in September and sent to Assembly Clerk John Mutie, ward reps were paid sitting allowances yet they were on foreign trips. The Kiambu County Government was brought into the limelight for failing to account for millions of shillings it paid to its members and staff as travel and sitting allowances during their first year in office. A document addressed to the Senate and Governor of Kiambu shown that nearly over Sh100 million was paid to MCAs who made two trips to Israel yet some of them were still in the country.

1.2 Statement of the Problem

Over the past few years, there has been the reception of dynamic changes in the economy of Kenya catalyzed by globalization, liberalization, and advancement in technology. However, a number of companies embarked on a journey to implement Enterprise Resource Planning systems in their organizations with one motive of integrating major functional areas such as accounting and finance, human resource, procurement, and operations (Rajan & Baral, 2015). ERP implementation was initiated by Kenya Power and Lighting Company (KPLC) implemented the SAP R/3 system in 1997 and then a number of companies followed suit. There are many others that may also be planning to implement these systems for their operations. Majority of the organizations increasingly have been inclined to the adoption of ERP systems due to the merits that accrue. Basically, the promising nature of the systems to eliminate loopholes associated with the smooth
running of the organizations delineates the pressure to adopt ERPs to streamline processes in relation to production and service delivery.

Kenya has experienced a conglomeration in equal measure of breakthroughs and failure of ERPs. Despite the pertinent adoption of these systems the expected feedback in terms of profitability still grapples with diminishing hopes of market share in relation to competitive advantage. More so, the public sector has continuously reported being failing terribly as far as service delivery is concerned and the outcry of common “mwananchi” fails to surpass the selfish interest of political group due to dereliction of their responsibilities.

Notably, there has been a tremendous increase in the adoption of a mechanism aimed at achieving modernization and create efficiency in the delivery of vital services in enhancing accountability and transparency in the public sector. The demand for streamlining of the services offered by the government has prompted the implementation of ERP. The contextual complexity of the implementation process is, however, regarded to be of bureaucracy, competitive among interest groups and clients who are dissatisfied. Significant changes in the organizational process, role, and cultural dynamic are orchestrated by the adoption of ERP (Ekman, Thilenius, & Windahl, 2014).

The inception of the new constitution of Kenya in the year 2010 led to the establishment of county governments that were operationalized by the entry of the new Jubilee government on 4th March 2013. However, they faced a number of challenges from accounting finance departments, human resource, and procurement that resonated from the inefficiency and incompetence of the incumbent legislators who had a minimal idea of running a county. Efforts, therefore, were made by some county governments to integrate the major functions of the operations carried out by the county to enhance accountability and transparency. These efforts were majorly rendered futile whereby the adoption of the integrated systems project crashed due to technical, financial or economic setbacks
since the implementers made repeated mistakes due to lack of monitory and evaluation capacity skills. Implementation of any new system often brings about a lot of challenges for instance where ERPs involve a lot of organizational change and realignment of departments and new procedures and set of instruction that must be followed to the latter (Al-Fawaz, Eldabi, & Naseer, 2010).

Barely few local studies are known to have researched on the factors affecting the implementation of ERP in county governments in Kenya since the onset of devolution that led to their establishment. A local research conducted by Nyagah (2006) asserts that teamwork and composition in the ERP implementer-vendor consultant partnership is a key factor influencing ERP implementation success. A local research conducted by Nyagah (2006) asserts that teamwork and composition in the ERP implementer-vendor consultant partnership is a key factor influencing ERP implementation success. The researcher also found out that good communication and coordination between implementation partners is essential.

However the researcher did not focus on a particular industry but based his study on the views of ERP consultants in Kenya. Mbogori (2010) argues that finances is a major factor affecting implementation of ERP. Although the study focused on the mobile communications sector, it was a case study of a specific company and the findings cannot be generalized to the whole sector. It is in this light that the researcher pre-eminently focused on fulfillment of the existing academic gap through carrying out a survey on the factors affecting implementation of ERP systems in county governments in Kenya, focusing on a case of Kiambu County Government.

1.3 Objectives of the study

The study focused on the following specific objectives:
i. To establish how organization culture influences the implementation of ERP in the Kiambu County Government.

ii. To determine the influence of top management support on ERP implementation in Kiambu County Government

iii. To establish how user training affect the implementation of ERP in Kiambu County Government.

1.4 Research Questions

i. How does organization culture affect the implementation of ERP in Kiambu County Government?

ii. Has the management been fully committed to ERP implementation in Kiambu County Government?

iii. How has the user training influenced ERP implementation in Kiambu County Government?

1.5 Justification and Significance of the Study

The findings of this study can be used mostly to the management of the county government. The vital information obtained from the study can facilitate the proper implementation of ERPs and various strategies in tackling the setbacks that the county faces in the implementation of these systems and especially in decision making. This then can reflect good accountability and transparency in the running of major operations in the County Assembly of Kiambu. Therefore in service delivery, there can therefore be efficiency and effectiveness and this would lead to improved performance.
The study also provides a strong basis especially for the academic writers and also other scholars engaged in research. In addition, the study aids in literature citations and other further research. Moreover, the government can have informed decisions regarding the policymaking as far as adopting and implementation of ERPs is concerned.

The information disseminated based on the findings obtained can provide important knowledge to consultants in ERP, experts and other professionals which can facilitate their understanding and reaction towards the underlying key issues that affect implementation of ERPs. The study further assists the experts and consultants to identify and understand the distinct interaction of regional factors, understand the institutions in the public sector and manage to set achievable goals and objectives.

1.6 Scope of the Study

The study was carried out to understand the factors that influence of ERP implementation among county governments. This study sought to establish those critical factors that affect the implementation of county governments in Kenya and the stress on specifically Kiambu County. The target population comprised of 238 employees working in different departments both at the Kiambu and Thika town county offices. The sample size of this study was 149 respondents. The independent variables of this study were organization culture, top management support and user training. The dependent variable of this study was the implementation of ERP systems among county governments.

1.7 Limitations of the study

In pursuit of this study, several limitations were encountered, accessing some areas within this organization. The issues of confidentiality affected data collection as respondents were afraid to
give some information fearing this could cost them their job if the management came to know about this. In order to carry out a successful research study, the researcher made adequate inquiries so that when data collection was due, the researcher didn’t experience any difficulties.

Communication to the respondents was also hindered to the various aspects of strict regulation that the organization had put in place to regulate movement within the organization. This happened where the respondents gave very brief information. The researcher came up with an approach of leaving them the questionnaires so that they could fill them during their free. This enabled the researcher to access the data despite their busy schedule and this involved the use of questionnaires that enhance convenience for both respondents and researcher.

1.8 Assumptions of the study

This study was informed by the following assumptions:

i. Organization culture serves as a determinant when it comes to implementing Enterprise Resource Planning systems in an organization such as the County government.

ii. Top management support is largely influential during the implementation of Enterprise Resource Planning Systems in County Government

iii. User training facilitates the implementation of Enterprise Resource Planning systems in County Government

1.9 Hypotheses of the study

The researcher proposed the following hypotheses:

**Hypothesis 1:** There is a significant relationship between organization culture and ERP implementation.
**Hypothesis 2:** There is a significant relationship between top management support and ERP implementation.

**Hypothesis 3:** There is a significant relationship between user training and ERP implementation.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In any organization, there are those functions and modules activated in the systems to determine the management of factors that affect the implementation of ERPs. However, in order to realize optimum benefits and also improve their performance, an organization should prepare adequately regarding the investment in management and culture on implementing the ERPs (Al-Fawaz et al., 2010). As a result, there is cost reduction, inefficiencies, and data consistency which in return tunes the performance of an organization. This is premised on how adequately an organization is prepared for the implementation process of ERPs. The stakeholders involved in the choosing and selection of a good ERP system have minimal control over the external forces.

Criticality involved in IT planning should guarantee the organization viable return on the investments injected. An organization is more concerned with the need to create the most effective IT plan. According to Moller, the outcomes of systems and the magnitude of their implementation is premised on the critical factors that surpass the control of the manager in a given project (ALdayel, Aldayel, & Al-Mudimigh, 2011). Therefore theories will tend to explain the extent to which the external control explicitly causes a reduction in the people’s and the organization's ability to structure their own goals into reality.

As far as reducing the costs and enforcing the internal control is largely affected by the impact of those factors that foster technological interaction and the organization during implementation. The user resistance and acceptance antecedents to ensuring proper adoption of IT systems have been explained by various theories. Such theories have been enumerated to assist in comprehension of
the requirement of the users and their acceptance to adoption (Matende & Ogao, 2013). The main agenda is to improve the efficiency by the creation of an enabling environment through user performance and as a result leading to a higher productivity and a major impact on both individual and organization performance. The extent to which ERP systems can be implemented in an organization is interlinked with the degree of the impact of those IT systems especially on the performance of an organization.

2.2 Evolution of ERP systems

Computers for a while have been in constant use by the manufacturing firms to enable the flow of information across the firm, improvement in production and overall profitability. Firms majorly applied computers in selling and distribution and manufacturing activities. The origin of ERP can be traced back when there was a transition to Material Requirements Planning and Material Resource Planning (MRP) from inventory control packages which were standard. Due to its standard nature, the inventory control packages could not include accounting and finance sections in a firm. The only role that the packages could perform dealt with processes in inventory that was traditional. However, during those days of computer usage, the Material Requirement Planning systems were tasked with scheduling and dispatching orders in purchasing and manufacturing work. The rationale behind this release order system was to enable subsections and components to gather at the station as per the requirement. As a result, MRP ensured there was inventory reduction, improved efficiency, and effectiveness and enhanced customer service (Haddara & Zach, 2011).

The sophistication of the users and the need to competitive advantage gave more space to expansion and advancement of MRP. The demand for more inclusive systems of functions in business led to more evolution from MRP to MRP II which had the ability to plan for overall
resources in the firm in a virtual way. The company-wide system was involved in ensuring that there is the integration of functions relating to finance, marketing, production, procurement and human resource departments that primarily core to the functionality of the organization. A major role of this integration allows improvement in the processes of manufacturing in terms of efficiency. MRP II, therefore, has overtime extended especially on the progress of concoction from the shops of manufacturing including rescheduling in production as a result of scaling down the requirements of planning in their capacity (Al-Ghofaili & Al-Mashari, 2014).

Since the 1980s there has been a tremendous improvement in MRP II through its evolution to just in time systems. The automation of systems became more integrated into mini and microcomputers. However, ERP systems became the backbone of creating a dynamic customer satisfaction as well as paper planning and scheduling various resources. The distinction from MRP II is that; MRP concentrated only on the internal planning of resources. The significant advancement and proliferation of the ERP since the 1990s incorporated more roles and functions which were extensive widely throughout the organization. These functions included quality control, management of the asset, accounting, and finance, warehousing and distribution in production and human resource (Nwankpa, 2015).

The gradual evolution of ERP recently has continued to incorporate more tasks such as systems in supply chain management, automating the marketing section, e-commerce and enhancing the sales team effort. The integration of numerous functions in organizations is what has prompted the ERP to enclose the chain of value in customer satisfaction by meeting their needs (Batada, 2012). To enable customer management an organization is tasked with the provision of an ideal platform that favors both the customers and suppliers. Otherwise, an enterprise will fail to gain competitive
advantage. As a result, an enterprise may face the risk of missing out on beneficial opportunities in the future.

2.2.1 Enterprise resource planning Adoption

ERP adoption follows a number of reasons that justify the motive behind businesses engaging deeply in the implementation of these automated systems. Organizations adopt ERPs first to ensure effectiveness in the functionality of activities due to their integration (Johansson, Alajbegovic, Alexopoulo, & Desalermos, 2015). Data entry and its retrieval across departments in the organization are facilitated by the integration of the processes to ensure efficiency. In addition, organizations achieve minimal when there is a repetition of tasks, spending a lot of time tracing documents and job overlaps. Therefore the adoption of ERP saves the time and money spent by simplifying various roles and tasks. However, growth in an organization is steered by the use of ERPs whereby the employees do not get overwhelmed. ERP also provides a link between the external organizations or individuals and the inside people. Organizations thrive well when they collaborate with partners, consultants, and other stakeholders through their adoption of ERP to provide the link among them (Haddara, 2012).

Increased responsiveness by customers, improvement in decision making, standardized platform need, improvement in processes, visibility in data and minimization of the operating costs, are some of the common reasons for the adoption of ERPs by organizations (Al-Jabri & Roztocki, 2015). The choice to allow implementation of solutions of ERPs is cited for various reasons and the most common reason is when organizations advocate for increased efficiency. Others reasons occur when a need arises and the pressure to allow improvement in terms of operations that are current, data and systems integration and achievement of competitive advantage in terms of service delivery. There are distinct drivers that favor the adoption of ERPs and they include; ensuring
customers’ demands are fully satisfied, eliminating competitive disadvantage and productivity improvement (Salum & Abd, 2015).

The adoption of ERPs is beneficial to the organization despite the time taken and resources consumed in its implementation. The systems facilitate timeliness of resources and information which then improves business processes and efficiency. In addition, the adoption allows security and safety of information stored. As a result, organizations achieve customer satisfaction through their expansion whereby processes are scaled up. ERP adoption is tasked with the mandate of ensuring that an organization has high data security to facilitate various processes relating to growth. The benefit of this integration ensures that customer satisfaction is enhanced through the provision of timely response and also facilitate that the customer received quality products and services within the stipulated time (Nwankpa, 2015). In addition, they allow optimum utilization of resources through proper allocation to minimize costs that are associated with wastage. Ideally, integration of distinct functions in the organization fosters effectiveness in arriving at reliable decisions. Unification of the functionality of departments ensures that vital information is channeled not only in the right manner but also at the right time.

Most importantly is the fact that ERP concerns itself with adequacy in the procurement processes for instance in supply chain management including human resource optimization in terms of the physical assets available. Basically, the aforementioned automation is engineered in such a way that the fundamental processes become less sophisticated as a result the organization is able to cut down on costs associated with providing a linkage between unintended computer systems (Haddara, 2012). However, adoption of ERPs surpasses basic processes of a business to incorporate fulfillment of customer order and manufacturing in large firms. The efficacy of ERP software is premised on the ability to adapt quickly since employees are mainly used to the old
system with internalized means of the use. Therefore the majority of the employees often find themselves in conflict regarding the adoption of new systems. The organizations face the dilemma of adopting ERP systems due to the failure to view from the end-user perspective in effective and efficient use of the systems to produce incredible results that are beneficial to the entire organization. The success of an organization either through production or service delivery efficiently rests on the exposure of the application of ERP with an integrated motive to allow transferability of technological initiatives which increases the likelihood of attainment of set goals (Kisielnicki & Misiak, 2016).

In the modern era, the design of ERPs shows precision in terms of elementary components that are pivotal to the entire organization. The advancement in technology over the recent years has facilitated the inclusion of graphical user interfaces with clear functions which are separated. The deployment of such techniques has allowed the clients to orchestrate the manner in which the processes of automated. Interaction of the user with the multi-functional databases has fervently minimized time wastage regarding the identification of roles and responsibilities. Customized ERP technologies including their extensions to enormous and powerful servers that contain databases with login procedures for each user courtesy of the relational database technology architecture. (Parthasarathy & Sharma, 2016)

**2.2.2 Challenges of ERP implementation**

However, regardless of the exhaustive advantages associated with ERP systems, numerous organizations generally are succumbed with hostility and resistance specifically by the users targeted to interact with new systems upon commencement of the process of implementation. Process reengineering is crucial in the integration of functions among diverse departments (Rajnoha, Kádárová, Sujová, & Kádár, 2014). The triumph of the implementation process is
guaranteed by the response of the users especially the employees in respect of their acceptability. In deploying ERP, employee acceptance is very critical to any success of the ERP implementation. Additionally, vendor support pegs success in its vitality in the adoption of ERP including its implementation. The company heavily relies on the vendors through their participation from the inception of planning stage to monitoring and evaluation throughout the life of the system and therefore collaboration is expected in terms of building trust and enhancing cooperation between the company and the vendor (Shah, Khan, Bokhari, & Raza, 2011).

A greater correlation exists between age and satisfaction of the user when it comes to adoption of new technology mainly the older generation or age bracket might be a bit hesitant as far as acceptance of ERPs is concerned. Unlike the older people, younger individuals have primarily been exposed to IT more often (Dezdar, 2012b). Consequently, they derive greater satisfaction even with the implementation of new systems such as ERPs since their interaction is more primitive. It makes sense to imply that in firms with younger users will extensively and efficiently adopt ERPs as compared to older users.

The level of education acts as a big determinant of user satisfaction of IT due to the frequent interaction with computers. There is a significant correlation between education level and adoption of ERP since formal education allows the use of computers. User training to equip users with IT skills is vital to allow proper coordination on the use ERP with increases the chances of success of adoption of ERP in organizations (Matende & Ogao, 2013).

User satisfaction largely depends on the experience of an individual on the use of computers. (Matende & Ogao, 2013) Higher experience renders a user with an ability to maneuver around specific problems and eventually come up with solutions. Such skills are important when it comes to employing ERP in any organization including increasing the magnitude of adaptability.
There is dire need to allow user participation when adopting IS in an organization to increase their satisfaction and in return, the users feel part of the process whereby they can contribute their insights. User inclusion in the process of adoption and implementation improves the perception of control through development of realistic expectations pertaining the information systems. It is out of increasing user involvement that maximizes the adoption of ERP in an organizations (Costa, Ferreira, Bento, & Aparicio, 2016). Additionally, the inclusion of top-level management is a critical factor in the implementation of ERP in organizations. Their support is fervent throughout the whole process ranging from the initiation of an ERP system to facilitation until implementation. The top-level management plays an important factor due to their ability to make strategic decisions. There is a close positive relationship between the support of top-level management and the manner in which users perceive them especially when an organization is adopting ERP system (Bai & Cheng, 2010).

Cultural dynamics within organizations affects also the implementation of systems with an organization and could possibly contribute largely to an implementation process of ERPs (Chiang, 2013). The dynamism for instance in western countries where ERPs originated rendered culture a critical success factor in the implementation of ERP systems by organizations. For any implementation process of any ERP systems in an organization to succeed, culture should be factored in to allow easier adaptation and synchronize with the key operational departments. This calls for the systems vendors and organizations to consider those ERP systems that are compatible with the culture of an organization. Implementation success of systems heavily relies on the fitness of the system packages adopted by an organization in relation to the organization’s culture. (Ke & Wei, 2008)
ERP systems implementation process is dependent on the collaboration of the organization of customer and software vendors. The association of the two impacts positively in the success of the organization’s process of implementing ERP systems. The user satisfaction is mostly enhanced by the rapport created between the system vendors and ERP buyers. During the adoption, ERP systems organizations should ensure upgrading to incorporate new features and modules to enable more compatibility with the business operations.

ERP customers and the vendors of the systems need to have a good partnership through their continuous support to increase the satisfaction of users in an organization. (Ajit, Donker, & Patnaik, 2014) Systems need to be less complex for easier use by the users and also for easier understanding to reduce resistance. The sophistication of an ERP system subject to users with the inability to use due to the absence of skills and know-how of the systems. The acceptance of any system is limited to the complex nature of any system innovation. If an innovation tends to be complex in nature then there will resistance and hence minimal user satisfaction. Consequently, the systems are affected negatively due to inadequate skills to handle the systems and also understand. Therefore, the success of the implementation of ERP systems will depend on the manner through the system will be simple to use and easy to comprehend. Customer organizations require stressing the simplicity of an ERP system to eliminate user resistance (Dezdar & Ainin, 2011).

In summary, user satisfaction relies on the age in terms of acceptance to change. This is because older people hesitate a lot, especially in new technologies adoption vis a vis the young individuals who get acquainted quite easily since they are innovative in nature and always ready to learn when it comes to information technology (Matende & Ogao, 2013). They tend to accommodate freely new systems and get satisfied better than their older counterparts. In addition, the level of education is important when implementing new systems. Formal education plays a major role in the
implementation process due to the frequent application of IT in the studies whereby the use of computers is rampant. The intensity of greater use of computers increases user satisfaction. People of higher education level find it easy and simple to understand new systems and therefore require less training in comparison to uneducated individuals. The perception of users largely relies on their expectations of a system to fulfill their needs. User satisfaction requires more involvement of the users and development of realistic expectations. This is achieved through the perceived control of the users to be fully involved in the whole process of the implementation of ERP systems. However, top-level top management support remains to be a critical factor as far as implementation process of ERPs is concerned (Al-Shamlan & Al-Mudimigh, 2011).

2.3 Theoretical Review

The literature review will focus on theoretical perspectives that address ERP implementation and also how past studies have looked at the implementation of Enterprise Resource Planning systems especially in the public sector as well as the research on critical factors that influence this implementation. However, most importantly the theory chosen must be in line with the research objectives and should also put into consideration the extraneous factors since addressing critical factors is a burning issue in research (Aldo & Helo, 2011).

As far as the adoption and also the implementation of ERP s concerned researchers have developed several theories and models. The theoretical review focused on the various models and theories that support the ERP implementation and such theories include the accountability theory and organizational culture theory.
2.3.1 Accountability theory

The perceived need that enables justification of a person’s behavior in relation to another person makes an individual to careful consideration and feel a sense of responsibility in ensuring that the manner in which certain decisions and judgments that are passed or made are rational enough. This is what accountability theory seeks to explain in relation to the decision making processes. However, the outcome of such decisions highly influences how a decision maker tends to be realistic and systematic in terms of the procedures and processes undertaken to arrive at any conclusion (Vance, Lowry and Eggett, 2015).

Accountability is best understood whereby there is the willingness by an individual to accept responsibility by virtue in order to improve the outlook of an entity and this is found among the officials and government agencies and firms in the public sector. In addition, accountability is also viewed as the obligation by an individual to be answerable to one’s own actions to a person who can pass on judgment and also administer reward or punishment for the actions committed. Accountability theory is premised on distinct building blocks that include identifiability, the expectation of evaluation, and awareness of monitoring and social presence and such dimensions can be affected by IT (Bovens, Goodin, Schillemans, & Gailmard, 2014).

2.3.2 Organizational culture Theory

Organizational culture is interpreted as those beliefs, values, behaviors, customs, rules, and regulations, attitudes, expectations that are either discovered, invented and developed by a group of organizations. Such pattern of basic assumptions facilitates and make the adaptation process both externally and internally especially to those new employees who join an organization. Through basic assumptions that define culture an organization is held together by these values and
behaviors. Research undertaken has shown that culture can exist at three distinct levels. First, the level that deals with those attributes of an organization whereby they can either be felt, observed or heard when a new member enters an organization. Secondly the adopted norms, goals, ideals and moral principles. Lastly are those unexplainable values by the members of an organization unless one observes carefully those basic assumptions that are assumed most of the time (Hatch, Mary Jo; Cunliffe, 2013).

There has to be an agreement between an organization and information systems adopted since information systems is basically an important part of the normal running of the organization. When an organization is making a decision on adoption of information systems, careful consideration must be made to ensure that the information systems are the best fit for the organization. The rationale rests on the need to quickly and naturally adapt through smooth integration with the organization. The most integral part of the ERP implementation is that synchronization of the IT and user environment. ERP systems must be integrated perfectly with the structure especial in a phenomenon of the complex social interaction of IT and the organization (Nyandiere, Kamuzora, & Lukandu, 2012).

Therefore organization culture influences largely the implementation of ERP systems. These patterns of basic assumptions must be intertwined unpredictably with the implementation of ERPs especially in the public sector otherwise there will be conflict due to challenges of adjustment and adaption.

2.4 Conceptual Framework

Conceptual framework basically illustrates that specific intertwining of blocks of a structure that are used as a representative of the aspects that are observed, tested through experiments and then
subjected to analysis in order to espouse the system or model being conceived. Through such process of using certain abstracts blocks of a completing framework that is aimed at establishing expected outcomes when undertaking the research.

The conceptual framework developed basically illustrates the factors that would warrant the successful implementation of Enterprise Resource Planning systems in Kiambu County Government. Such factors include the engagement of top-level management, increased user training, and development which is effective enough to allow compatibility, continuous review of a comprehensive risk management and flexible organizational culture that accommodates changes introduced by the adoption and implementation of ERP systems. However, there have been unnecessary delays in achieving full implementation of ERPs in the entire organization due to rigid culture perceived by the employees that reduce control in the implementation of ERPs. In addition, the laxity on the top management in terms of their support has slowed down the implementation of ERPs. Their failure to provide support has rendered the implementation process with inadequate resources, poor preparation, and participation. Lack of proper training results to deteriorating skills development and to some extent the users have no knowledge of how to use the new systems and this could be due to ignorance. Additionally, the lack of a comprehensive risk management exposes the implementation of ERP to vulnerability due to hacking and other malware associated with an Information System (Rhodes, Lok, Yang, & Xia, 2011).
2.5 Summary and Gap in Research

The literature reviewed above reveals how ERP has been adopted and implemented by different organizations and the motives behind this adoption and implementation. Nevertheless, various other researchers have contributed their insights as far as the implementation of ERPs is concerned. Allan and Kern in their research on implementation of ERP systems in Singapore found great incompatibility in relation to procedural legal requirements and data formatting. Their study found
out that there is a great hazard during the implementation of ERP systems is premised on a single nation, religion or culture and does not fit in another. Despite the similarity in some variables to this study, the research gap identified prompts the researcher to enumerate critically those factors affecting the implementation of ERPs in organizations.

Other studies conducted by Bradley and Lee 2007 found that it is very important to conduct user training in an organization where ERP systems seek to be implemented. They concluded that there is an increased user satisfaction as a result of effective training and hence their productivity will be improved. However, my study stresses more on the end user training and development on ERP and therefore the identification of the research gap (Edmunds, Beidas, & Kendall, 2013).

Srivastava and Gips 2009 conducted their study on the expectations in adopting and managing ERP systems at the strategic level and they came up with some findings that there is disunity across functional departments among the managers (Dezdar, 2012a). This was as a result of failure to prioritize first on the needs of the entire organizations instead of the overall organizational goal hence top-level management injects little effort to the implementation of ERP systems. This was regarded as an IT project as it was left in the hands of the employees in IT department. However, there is a disparity with my study since mine addresses those factors that affect the ERP implementation and hence the research gap.

Evidently out of the literature reviewed, it is clear that some factors are very critical when it comes to implementation of ERP in any organization. In light of the discovery of thematic areas of concern, this study, therefore, justifies further examination and deliberation in relation to adoption and implementation of ERP systems. To sum up the review it goes without saying that various factors to be examined in the implementation of ERP could possibly be organizational culture, top
management support, user training and development and conduct of a comprehensive risk management.
CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides a discussion of the methodology which was used while undertaking the study. The chapter explains the research design especially in relation the researcher’s choice of design. The target population of the study, sampling design, and sample size, data collection methods including data analysis methods are explained in depth in this chapter in the manner through which they were employed in this study.

3.2 Research Design

In this study, a descriptive survey design was employed as it allows in-depth analysis of information systems adopted and as a result, there will be an adequate rich description and proper understanding essential in the analysis of ERP implementation. Descriptive research design is useful especially in a study that involves gathering data from a specified population to examine their opinions on the different areas comprising the research questions. The study adopted a research instrument of a self-administered questionnaire to incorporate both open-ended and closed questions.

Mainly, the role of a descriptive research design is to expound in depth the state of affairs as the situation is currently. It involves the process of data collection that was used to provide answers to questions on the current status among the subjects under the study. The purpose of descriptive statistics mainly involves providing a description of information or data represented using groups of numbers.
Descriptive research design ensures that data provide remains factual, accurate and systematic but such data cannot be used to explain what transpired in a given phenomenon (Pati, Colorafi, & Evans, 2016). This research design, therefore, fitted well the study and hence the motive behind the choice of descriptive research design was to investigate the factors that affect the implementation of ERP systems in Kiambu County Government. This research design was advantageous because it allowed detailed and conclusive description of the state of affairs.

3.3 Study Variables

The variables in the study included the dependent variable which was the implementation of ERP systems and the independent variables were; top-level management, increased user training and development which is effective enough to allow compatibility, continuous review of a comprehensive risk management and flexible organizational culture.

3.4 Study Site

The study was carried in Kiambu county government offices both at Kiambu town and Thika town.

3.5 Target Population

Population is defined as an entire group of objects, events or individuals with the same characteristic for observation or the aggregate of the conformity to certain specifications (Maditinos, Chatzoudes, & Tsairidis, 2011).

Therefore, according to this study, the target population consisted of a sample of the employees of Kiambu County Government working at the human resource, accounting and finance, land housing and physical planning, supply chain management and ICT departments in both offices in Kiambu town and Thika town. The target population comprised of 238 employees situated at the head offices in Kiambu Town and Thika town. The researcher stratified the above major departments
who had interacted with ERPs. This is indicated in Table 3.1 and this is according to a human resource staff records.

3.6 Sampling Techniques and Sample Size

The numbers of staff working at Kiambu county government head office in Kiambu town was obtained from the human resource department. The research used questionnaires in the case of employees and interviews with directors heading selected departments. A simplified formula for proportion by Yamane 1967 was used in the determination of sample size. The research used this formula to calculate the sample size and this is illustrated below. In addition, a 95% confidence level and p=0.5 will be assumed and Precision (e) =0.05

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

Where:
- \( n \) is the sample size
- \( N \) is the population size
- \( e \) is the precision

\[ n = \frac{238}{1+238(0.05)^2} = 149.2 \approx 149 \text{ employees.} \]

This study adopted a stratified random sampling technique in selecting a sample. This technique required dividing the target population into strata. The various departments used in this study
represented these strata. The strata chosen sought to split the population into important functional areas relevant to the study, that is, each department used is different in the manner through which they have implemented their ERP systems (Thompson, 2012). Once the population was divided into strata, respondents were chosen randomly from these strata which were then used in the study. Hence, a randomized probabilistic sample was selected from each stratum. Stratified random sampling was useful in the sense that it enables an in-depth examination or investigation of each department. The motive behind settlement on this method was the ability to provide findings from the diverse departments which were relevant to this study.

Table 3.1 Distribution of target population and sample size

<table>
<thead>
<tr>
<th>Departments</th>
<th>Target population</th>
<th>Computation</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resource</td>
<td>26</td>
<td>$\frac{149}{238} \times 26$</td>
<td>16</td>
</tr>
<tr>
<td>Accounting and finance</td>
<td>59</td>
<td>$\frac{149}{238} \times 59$</td>
<td>37</td>
</tr>
<tr>
<td>Supply chain management</td>
<td>66</td>
<td>$\frac{149}{238} \times 66$</td>
<td>41</td>
</tr>
<tr>
<td>ICT</td>
<td>54</td>
<td>$\frac{149}{238} \times 54$</td>
<td>34</td>
</tr>
<tr>
<td>Land housing and physical planning</td>
<td>33</td>
<td>$\frac{149}{238} \times 33$</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>238</td>
<td></td>
<td>149</td>
</tr>
</tbody>
</table>

Source: Author 2017
3.7 Research Instruments

The study collected primary data from sources by use of self-administered questionnaires to the respondents. Questionnaires are defined as a data collection tool that contains various questions that extensively cover all the information that the researcher could be interested in obtaining from the respondents. Other researchers such as Kothari explains that questionnaires are deemed to be the heart of a given survey operation and therefore, should be properly constructed (Kazi & Khalid, 2012). The reason behind the choice of this research instruments is due to its suitability and appropriateness. Questionnaires are advantageous in the sense that they're characterized by their ability to capture the extensive and large amount of useful data to a study both in qualitative and quantitative data. The researcher administered a questionnaire to each member selected from the target population. However, these questionnaires used contained closed-ended questions used to obtain structured responses which in many cases tends to facilitate tangible recommendations. Such type of questions provides quantitative data (Farrell, 2016).

3.8 Validity and reliability

3.8.1 Reliability

Reliability, on the other hand, refers to a measure of the degree to which research instruments yield consistent results (Geisinger, 2013) In this study, reliability was ensured by pre-testing the questionnaire which tends to encourage correction in relation to arising inconsistency from the research instruments. The purpose of pre-testing was to measure clarity and the relevance in relation to the research instrument items. Items that were found to be inadequate in measuring variables will either be discarded or modified to ensure the quality of the research instruments is improved. The researcher applied the internal consistency technique from the scores obtained from
just the single test that was administered to the respondents who were not included in the sample. Cronbach’s coefficient Alpha was used to measure reliability on the questionnaires to check for internal consistency in terms of how the items are correlated. The Cronbach’s Coefficient Alpha was calculated by the use of SPSS software for reliability analysis and it is shown below:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Where:

$N$ = the number of items.

$\bar{c}$ = average covariance between item-pairs.

$\bar{v}$ = average variance.

### 3.8.2 Validity

Validity is the most critical criterion and refers to the degree through a research instrument tends to measure what is supposed to measure. Kothari explains that validity explains the magnitude to which the differences to be found with measuring instrument will reflect true differences among those being tested. Validity tries to assess the extent to which data to be obtained in the study represents the variables in a study and hence inferences based on such data will be truthful, accurate and meaningful.

Validity was ensured by having objective questions included in the questionnaire and by pre-testing the instruments used through a pilot study in order to identify and change any ambiguous, awkward, or offensive questions and techniques as emphasized by Cooper and Schindler (2008). Validity was tested by computing a correlation coefficient and use it to compare independent and dependent variables.
3.9 Data Collection Procedure

The researcher first, sought permission by obtaining an introductory letter from the School of Humanities and social sciences at Kenyatta University. Then, the researcher sought permission from the National Commission for Science, Technology, and Innovation (NACOSTI) before embarking on a collection of data. Once the permission was obtained the researcher attached a cover letter to the self-administered questionnaires detailing the objectives of the research and reassuring the respondents of their confidentiality and anonymity. The researcher administered questionnaires to respondents who filled in the blank spaces provided within the questionnaires. The questionnaires were administered individually on a drop and pick basis by the researcher for both those respondents who could be reached physically and those who were mailed their emails. Due to the busy work schedules at the head office, the respondents were given time to fill in the questionnaires and then collect them after two days. Since the researcher had sought the consent of the respondents to participate in the study, telephone contacts were requested to engage follow up which enabled the researcher to get informed when the duly filled up questionnaires were ready. The method has gained popularity due to its potential to accommodate big inquiries to allow time-saving.

3.10 Data Analysis and Presentation.

Quantitative data which was collected was compiled, sorted, classified and entered into the computer analysis using the Statistical Package for Social Scientists (SPSS). This data was presented using means, percentages, standard deviations and frequency tables. Bar charts, pie charts, graphs were used to display this analyzed data and in prose form. A cross tabulation and correlation analyses was carried out to present the background information against the study variables and establish the strength of the relationship between variables respectively. This in
return help make conclusions on the factors focused on the research. Multiple regression models were used in the analysis to determine the variance in the dependent variable that is explained by the independent variable.

Formula

\[ Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon \]

Where:

- \( Y \) = dependent variable (implementation of ERP systems).
- \( \alpha \) = (alpha) is the regression constant or intercept.
- \( \beta_1, \beta_2 \) and \( \beta_3 \) =Beta coefficients for independent variables \( x_1, x_2, \) and \( x_3 \) respectively.
- \( x_1 \) is Organization structure
- \( x_2 \) is Top management support
- \( x_3 \) is User training
- \( \varepsilon \) =error term

### 3.11 Data Management and Ethical Considerations

There was a need for a researcher to be in conformity the principle of voluntary consent where the researcher allows the respondents to freely and willingly participate in the study. Through informed consent should relate to the information gathered incoherence to the purpose of the study, identification of the researcher and the benefits to be derived from the research. The researcher was smart enough to note that participation in any form of research should be voluntary and there should be free will to discontinue their participation in the study any time without any consequences (Polonsky & Waller, 2011).
The researcher made formal arrangements with the County Secretary Kiambu County Government to confirm the dates for data collection in order to obtain consent to conduct research in the organization. The goal of seeking permission was to get rid of any conflicts that could arise from the respondents.

Additionally, the researcher requested an introduction letter from the school of humanities and social sciences to ensure proper identification during data collection. The letter ensured clarity on the goal of the study and the nature of the research and as a result leading to improvement in cooperation among the respondents in data collection.

The researcher is obligated to ensure that the respondents’ information is confidential and anonymous which restricted mentioning of specific names of the participants. Plagiarism has been considered as the act of claiming credit for any work done by someone else. It is lack of acknowledgment of the person who initially came up with an idea and to some extent using another individual’s thoughts as if they are your own (Ali, Ismail, & Cheat, 2012). The researcher was keen to ensure that in case of ideas, thoughts and opinions were borrowed from other researchers and academic scholars, then a proper acknowledgment done.
CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents the results and discussion of the study findings. The chapter begins with a presentation of the response rate. Findings from the descriptive statistics and inferential statistics including correlation and regression analysis are also presented. From the findings, a conclusion and recommendation will be made in the next chapter.

4.1 Response Rate

The number of questionnaires that were administered was 149. A total of 86 questionnaires were properly filled and returned. This represented an overall successful response rate of 57.7% as shown on Figure 4.1. According to Babbie (2004), return rates of 50% are acceptable to analyze and publish, 60% are good and 70% are very good. A response rate of 87% was hence very good for the study. The high response rate was achieved because the method of drop and pick was effective. The respondents who were busy were given more time to respondent to the questionnaire before they were picked.
The reliability of an instrument refers to its ability to produce consistent and stable measurements. Reliability of this instrument was evaluated through Cronbach’s Alpha which measures the internal consistency. Cronbach’s Alpha value is widely used to verify the reliability of the construct. The results are presented in Table 4.1.

Table 4.1 Reliability Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>Number of questions</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Culture</td>
<td>0.767</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Top Management Support</td>
<td>0.897</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>User Training</td>
<td>0.745</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Implementation of ERP</td>
<td>0.834</td>
<td>6</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Source: Research Data, 2017
The findings indicate that the measures of the 4 variables used in the study recorded Cronbach’s alpha’s values of greater than 0.7. Given that the threshold for passing reliability to be 0.7 (Geisinger, 2013), then the variables used in the study were concluded to be reliable to model the relationship between the independent and the dependent variable.

4.3 Demographic Characteristics

This section contains results on demographic analysis which include; gender, work experience and work position. The section describes the target population but does not establish a relationship between the study variables.

4.2.1 Gender

The respondent’s gender was established as shown in Table 4.2. It was established that majority of the respondents, making up employees in the human resource, accounting and finance, land housing and physical planning, supply chain management and ICT departments in both offices in Kiambu town and Thika town were male (59%) while female were 41%. The findings imply that there was equal gender representation in the study. Furthermore, it can be argued that Kiambu County has adhered to the constitutional requirement of not more than a third of employees being of the same gender.
Table 4.2 Respondents Gender

4.2.2 Work Experience

The respondent’s work experience was established as shown in Table 4.3. It was established that 22% of the respondents were having a work experience below 6 months, 19% had worked for a period between 1 and 2 years while the majority, 59%, had a work experience above 3 years. The findings imply that the respondents had a high institutional knowledge and were in a better position to give information on enterprise resource planning in the county government of Kiambu.

Figure 4.3 Work experience
4.2.3. Rank in the organization

The study also established the respondent’s position to know distribution of the respondents by their positions. Among those targeted were employees in non-management positions, employees in management positions and employees in senior positions. The findings showed that majority of the participants in the study were staff in non-managerial positions that made up 66%, those in management positions were 20% and the senior officers were 14%. The findings indicate that there was no bias in who participated in the study and hence it can be argued that the information given was from varied caliber.

![Rank in the organization](image)

**Figure 4.4 Rank in the organization**

4.3 Descriptive Statistics

Descriptive findings were used to establish the mean and standard deviation of the responses on the Likert scales used in the study. A scale of 1 to five was used in the study. Quantification of Likert scale categories was done by assigning numerical values to the various categories in order to facilitate statistical representation of data. The data was analyzed using SPSS version 22 using frequency and percentage tables.
4.3.1 Organizational Culture

The first objective of the study was to establish how organization culture influences the implementation of ERP in the Kiambu County Government. The respondents rated statements on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The findings are presented in Table 4.5 and it indicates that majority of the respondents, 80.2% agreed that the overall organizational culture of the employees in the county is that that accept new technology, 79.1% on the other hand agreed that organization culture is impacted at all levels of organization and individual in terms of values, 65.1% agreed that organization culture is impacted at all levels of organization and individual in terms of rules, 82.6% agreed that organization culture is impacted at all levels of organization and individual in terms of procedures and all the respondents agreed that strategic positioning of roles and their interpretation by actors result to influence of implementation of ERPs.
Table 4.5 Descriptive Statistics of Organizational Culture

<table>
<thead>
<tr>
<th>Statement</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture promotes acceptance new technology among employees</td>
<td>19.80%</td>
<td>0.00%</td>
<td>80.20%</td>
<td>4.60</td>
<td>0.80</td>
</tr>
<tr>
<td>Organization culture impacts at all levels of organization and individual in terms of values</td>
<td>20.90%</td>
<td>41.90%</td>
<td>37.20%</td>
<td>4.16</td>
<td>0.75</td>
</tr>
<tr>
<td>Organization culture impacts at all levels of organization and individual in terms of rules</td>
<td>34.90%</td>
<td>33.70%</td>
<td>31.40%</td>
<td>3.97</td>
<td>0.82</td>
</tr>
<tr>
<td>Organization culture impacts at all levels of organization and individual in terms of procedures</td>
<td>17.40%</td>
<td>47.70%</td>
<td>34.90%</td>
<td>4.17</td>
<td>0.71</td>
</tr>
<tr>
<td>Strategic positioning of roles and their interpretation by actors result to influence of implementation of ERPs</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.0%</td>
<td>5.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The respondents were also asked to indicate the magnitude through which organization culture has supported the implementation of ERP. The findings indicated in Table 4.6 indicates that majority of the respondents felt that organizational culture has supported the implementation of ERP in Kiambu County to a very large extent, 27% felt it has supported to a large extent, 12% felt it has only supported to a small extent and 5% argued that organizational culture has not supported implementation at all.
Table 4.6 Extent to which Organizational Culture has supported the Implementation of ERP

<table>
<thead>
<tr>
<th>Extent to which Organizational Culture has supported the Implementation of ERP</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>48</td>
<td>56%</td>
</tr>
<tr>
<td>Large extent</td>
<td>23</td>
<td>27%</td>
</tr>
<tr>
<td>Small extent</td>
<td>10</td>
<td>12%</td>
</tr>
<tr>
<td>No extent at all</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.3.2 Top Management Support

The second objective of the study was to determine the influence of top management support on ERP implementation in Kiambu County Government. The respondents rated statements on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The findings are presented in Table 4.7 and it was established that 68.2% of the respondents agreed that top management is essential is providing stewardship in ERP implementation, 48.9% agreed that the participation of top management in the whole process from inception to monitoring and evaluation is key to the achievement of the set organization goals and 76.7% on the other hand agreed that the top management team in the organization provide the needed financial resources to adopt a new technology. It was also established that 69.7% of the respondents agreed that the top management develops an understanding of the restrictions and abilities, demonstrating commitment, and establishing rational objectives for the ERP implementation while 44.2% agreed that top management support motivates the employees and become more productive including realizing their full potential.
### Table 4.7 Descriptive Statistics of Top Management Support

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management is essential is providing stewardship in ERP implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.70%</td>
<td>1.32</td>
</tr>
<tr>
<td>The participation of top management in the whole process from inception to monitoring and evaluation is key to the achievement of the set organization goals</td>
<td>9.30%</td>
<td>22.10%</td>
<td>19.80%</td>
<td>1.20%</td>
<td>47.70%</td>
<td>3.56</td>
<td>1.49</td>
</tr>
<tr>
<td>The top management team in the organization provide the needed financial resources to adopt a new technology</td>
<td>7.00%</td>
<td>9.30%</td>
<td>7.00%</td>
<td>15.10%</td>
<td>61.60%</td>
<td>4.15</td>
<td>1.30</td>
</tr>
<tr>
<td>Top management develops an understanding of the restrictions and abilities, demonstrating commitment, and establishing rational objectives for the ERP implementation</td>
<td>0.00%</td>
<td>0.00%</td>
<td>30.20%</td>
<td>26.70%</td>
<td>43.00%</td>
<td>4.13</td>
<td>0.85</td>
</tr>
<tr>
<td>Top management support motivates the employees and become more productive including realizing their full potential.</td>
<td>11.60%</td>
<td>17.40%</td>
<td>26.70%</td>
<td>14.00%</td>
<td>30.20%</td>
<td>3.34</td>
<td>1.38</td>
</tr>
</tbody>
</table>

The study also established the extent to which the senior management been involved in the implementation of ERP in Kiambu County. The findings are presented in Table 4.8. It was
established that 54% of the respondents felt that senior management have been involved in the implementation of ERP in Kiambu County to a very high extent, 38% felt that senior management have been involved in the implementation of ERP in Kiambu County to a high extent while the rest thought otherwise. Generally, the findings imply that the top management is involved to a great extent in implementation of ERP systems at Kiambu County.

Table 4.8 Extent of Top Management Involvement in Implementation of ERP

<table>
<thead>
<tr>
<th>Extent of Involvement</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very large extent</td>
<td>46</td>
<td>54%</td>
</tr>
<tr>
<td>Large extent</td>
<td>33</td>
<td>38%</td>
</tr>
<tr>
<td>Small extent</td>
<td>6</td>
<td>7%</td>
</tr>
<tr>
<td>No extent at all</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>86</td>
<td>100%</td>
</tr>
</tbody>
</table>

Furthermore, there was a need to establish the kind of support which top management prioritizes on mostly. Among the choices was financial, personnel resource, technological resources and time resources. The findings presented in Table 4.9 indicates that majority of the respondents, 43% felt that the top management supported the implementation of ERP by providing financial support, 32% felt that it supported implementation of ERP by providing technological resource, while 21% felt that it supported implementation of ERP by providing personnel resources. The findings imply that there was top management support in implementation of ERP at Kiambu County in Kenya.

This analysis was interpreted to mean that lack of involvement of senior management in the implementation of ERP is an indication of lack of commitment from the top management which can lead to failure in the implementation of ERP. The result supports findings by Zhang et.al
Zhang et al (2005) pointed out that top management support provide necessary resource and providing leadership to the organization.

Table 4.9 Type of Top Management Support

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>37</td>
<td>43%</td>
</tr>
<tr>
<td>Personnel Resource</td>
<td>18</td>
<td>21%</td>
</tr>
<tr>
<td>Technological Resource</td>
<td>28</td>
<td>32%</td>
</tr>
<tr>
<td>Time Resource</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>86</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

4.3.3 User Training

The third objective of the study was to establish how user training affects the implementation of ERP in Kiambu County Government. The respondents rated statements on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The findings are presented in Table 4.10. It was established that 57% of the respondents agreed that implementation of ERP largely rely on the extent to which a trainee has mastered a specific IT tool in terms of knowledge and skills, 52.3% agreed that for an employee to learn how an ERP works and the use, there is a need for end user training and 67.4% agreed that the organization has set aside funds to train its employees on IT related skills. It was also established that 60.5% of the respondents agreed that the organization conducts workshops to enhance the ICT skills of the employees and 81.4% agreed that a lot of time and money is required to ensure end users are trained well. From the findings it can be said that mastery of a specific IT tool in terms of knowledge and skills, conducting workshops to enhance the ICT skills of the employees and
setting up of funds aside to facilitate user training influences the implementation of ERP. This analysis was interpreted to mean that failure to incorporate feedback from the end user training little improvement on employees’ skills and knowledge will be achieved. In addition,

This in line with Nah et.al (2003) which reported that user training assist organization to build positive feeling towards system helps user to adjust to organizational change and increases ease of use and reduce user resistance which enhance ERP success.

Table 4.10 Descriptive Statistics of User Training

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of ERP largely rely on the extent to which a trainee has mastered a specific IT tool in terms of knowledge and skills</td>
<td>10.50%</td>
<td>3.50%</td>
<td>29.10%</td>
<td>%</td>
<td>43.00%</td>
<td>3.76</td>
<td>1.33</td>
</tr>
<tr>
<td>For an employee to learn how an ERP works and the use, there is a need for end user training</td>
<td>0.00%</td>
<td>22.10%</td>
<td>25.60%</td>
<td>%</td>
<td>25.60%</td>
<td>3.56</td>
<td>1.10</td>
</tr>
<tr>
<td>The organization has set aside funds to train its employees on IT related skills</td>
<td>0.00%</td>
<td>0.00%</td>
<td>32.60%</td>
<td>%</td>
<td>26.70%</td>
<td>3.94</td>
<td>0.77</td>
</tr>
<tr>
<td>The organization conducts workshops to enhance the ICT skills of the employees</td>
<td>0.00%</td>
<td>0.00%</td>
<td>39.50%</td>
<td>%</td>
<td>31.40%</td>
<td>3.92</td>
<td>0.84</td>
</tr>
<tr>
<td>A lot of time and money is required to ensure end users are trained well.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>18.60%</td>
<td>%</td>
<td>39.50%</td>
<td>4.21</td>
<td>0.74</td>
</tr>
</tbody>
</table>
4.3.4 Implementation of ERP

The respondents rated statements on implementation of ERP on a scale of 1 to 5 where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The findings are presented in Table 4.11. The findings showed that 79.2% of the respondents agreed that the organization is able to make financial savings due to the presence of ERP, 46.5% on the other hand agreed that the clients are satisfied because of the services rendered through ERP while 65.1% agreed that the clients complaints has significantly gone down after the implementation of the ERP. The findings further showed that all the respondents agreed that services delivery has significantly improved because of ERP while those who agreed that operating performance has gone higher because of ERP were 97.6%. On the other hand, the number of respondents who agreed that operating costs has significantly reduced because of ERP were 50% of the 86 respondents. Generally, the findings imply that adoption of ERP has greatly improved service delivery, reduced operational costs, enhanced efficiency and increased effectiveness at Kiambu County.
Table 4.11 Implementation of ERP

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization is able to make financial savings due to the presence of ERP</td>
<td>0.00%</td>
<td>0.00%</td>
<td>20.80%</td>
<td>0.00%</td>
<td>79.20%</td>
<td>4.60</td>
<td>0.8</td>
</tr>
<tr>
<td>The clients are satisfied because of the services rendered through ERP</td>
<td>0.00%</td>
<td>34.90%</td>
<td>18.60%</td>
<td>19.80%</td>
<td>26.70%</td>
<td>3.38</td>
<td>1.2</td>
</tr>
<tr>
<td>The clients complaints has significantly gone down after the implementation of the ERP</td>
<td>0.00%</td>
<td>0.00%</td>
<td>34.90%</td>
<td>36.00%</td>
<td>29.10%</td>
<td>3.94</td>
<td>0.8</td>
</tr>
<tr>
<td>Our services delivery has significantly improved because of ERP</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.00</td>
<td>0.00</td>
<td>0.0</td>
</tr>
<tr>
<td>Our operating performance has gone higher because of ERP</td>
<td>0.00%</td>
<td>0.00%</td>
<td>2.30%</td>
<td>26.70%</td>
<td>70.90%</td>
<td>4.69</td>
<td>0.5</td>
</tr>
<tr>
<td>Our operating costs has significantly reduced because of ERP</td>
<td>19.80%</td>
<td>0.00%</td>
<td>30.20%</td>
<td>10.50%</td>
<td>39.50%</td>
<td>3.50</td>
<td>1.5</td>
</tr>
</tbody>
</table>

4.4 Correlation Analysis

The association among the variables used in the study was examined using the correlation analysis whose results are presented in table 4.12 below. Correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive
linear sense; a correlation Coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear association between the two variables.

The findings presented indicate that organizational culture has a positive ($r = .343$) and significant (Sig = .001, < .05) effect on implementation of ERP systems at Kiambu County. These findings imply that better organizational culture in terms of better methodological support programs, regular monitoring and on-going consultation leads to a significant improvement in implementation of ERP systems at Kiambu County. Srivastava and Gips (2009) similarly established that organizational culture was very important in implementation of a new policy in the organization.

The findings also indicated that top management support has a positive ($r = .285$) and significant (Sig = .008, < .05) effect on implementation of ERP systems at Kiambu County. These findings imply that an increase in top management support in terms of optimal resource allocation, activity rescheduling and employee motivation leads to a significant improvement in implementation of ERP systems at Kiambu County. The findings are consistent with Edmunds, Beidas and Kendall (2013) who argued that top management support was very essential for any success in implementation of an organizational policy.

The findings indicated that user training has a positive ($r = .214$) and significant (Sig = .048, < .05) effect on implementation of ERP systems at Kiambu County. These findings imply that an increase in user training in terms of lifelong learning, ad-hoc development programs and training methods and outcomes leads to a significant improvement in implementation of ERP systems at Kiambu County. The findings are consistent with the findings of Bradley and Lee (2007) who argued that
it is very important to conduct user training in an organization where ERP systems seek to be implemented.

Table 4.12 Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Organizational Culture</th>
<th>TM support</th>
<th>User Training</th>
<th>ERP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Culture</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TM support</td>
<td>Pearson Correlation</td>
<td>.238*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Training</td>
<td>Pearson Correlation</td>
<td>0.074</td>
<td>0.144</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.497</td>
<td>0.186</td>
<td></td>
</tr>
<tr>
<td>ERP Implementation</td>
<td>Pearson Correlation</td>
<td>.343**</td>
<td>.285**</td>
<td>.214*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.001</td>
<td>0.008</td>
<td>0.048</td>
</tr>
<tr>
<td></td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N 86  86  86  86

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

** Correlation is significant at the 0.01 level (2-tailed).
4.6 Regression Analysis

A regression analysis was then used to test the research objectives with the equation being $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$. The results for model summary, fitness and coefficients are presented.

4.6.1 Coefficient of Determination

The coefficient of determination also called the R square is a measure of linear relationship. $R^2$ is a statistical term saying how good one term is at predicting another. If $R^2$ is 1.0 then given the value of one term, you can perfectly predict the value of another term. If $R^2$ is 0.0, then knowing one term does not help to know the other term at all. More generally, a higher value of R-Square means that you can better predict one term from another. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables. The Adjusted R-Square is simply the R-Square value adjusted to more accurately reflect the predictability of the model based on the number of predictors. In this study, an adjusted R square value of 0.17 indicates that the percentage of variation in the dependent variable (implementation of ERP systems) that is explained by all the three variables (user training, organizational culture and top management support) is 17%. The model indicates that the three variables have a low predictive power in as far as implementation of ERP is concerned.

Table 4.13 Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.446</td>
<td>0.199</td>
<td>0.17</td>
<td>0.3373</td>
</tr>
</tbody>
</table>

Predictors: (Constant), User Training, Organizational Culture, Top Management Support
4.6.2 Model Significance

The model significance was predicted by the model ANOVA table. The test for the joint significant which is given by the F statistic is 6.783 and as observed in a table below, it is statistically significant at 5% level of significance. This implies that the User Training, Organizational Culture and Top Management support significantly explain implementation of ERP in Kiambu County. This therefore reveals that the regression model developed is statistically significance and the variation in the results is insignificant that cannot result to a much difference in case of a change in the study units (population) and therefore the model can be relied upon to explain the determinants of implementation of ERP in Kiambu County in Kenya.

Table 4.14 ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.315</td>
<td>3</td>
<td>0.772</td>
<td>6.783</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>9.328</td>
<td>82</td>
<td>0.114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11.643</td>
<td>85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Implementation of ERP

Predictors: (Constant), User Training, Organizational Culture, Top Management support

4.6.3 Model Coefficients

The model coefficients were used to establish the change in implementation of ERP given a change in any of the determinants. The findings for model coefficients are indicated in Table 4.15.

The regression findings showed that organizational culture positively and significantly affects implementation of ERP in the county government of Kiambu (Beta = 0.310, P-value = 0.009, <
These implies that taking all other independent variables constant at zero, a unit improvement in organizational culture will lead to a 0.310 unit increase in implementation of ERP in the county government of Kiambu. The findings are consistent with Dezdar (2012) who argued that organizational culture was very important in implementation of organizational policies and that when the organizational culture is not right, there is disunity and the success in implementation decreases.

It was also established that top management support positively and significantly affects implementation of ERP in the county government of Kiambu (Beta = 0.087, P-value = 0.035, < .05). These implies that taking all other independent variables constant at zero, a unit improvement in top management support will lead to a 0.087 unit increase in implementation of ERP in the county government of Kiambu. The findings are consistent with Edmunds, Beidas and Kendall (2013) who argued that top management support was very essential for any success in implementation of an organizational policy.

It was lastly established that user training positively but not significantly affects implementation of ERP in the county government of Kiambu (Beta = 0.138, P-value = 0.112, > .05). These implies that taking all other independent variables constant at zero, a unit increase in user training improves implementation of ERP in the county government of Kiambu but not significantly. The findings are consistent with the findings of Bradley and Lee (2007) who argued that it is very important to conduct user training in an organization where ERP systems seek to be implemented.
Table 4.15 Model Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.955</td>
<td>0.575</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>0.310</td>
<td>0.117</td>
</tr>
<tr>
<td>User Training</td>
<td>0.138</td>
<td>0.086</td>
</tr>
<tr>
<td>Top Management Support</td>
<td>0.087</td>
<td>0.041</td>
</tr>
</tbody>
</table>

Dependent Variable: Implementation of ERP

Revised Regression Model

Implementation of ERP = 1.955 + 0.310 (Organizational Culture) + 0.087 (Top Management Support)

4.7. Discussions of the Findings

This study sought to identify the determinants of enterprise resource planning implementation by county governments taking a case of Kiambu County Kenya. The study identified three factors that have a positive relationship with ERP implementation. They include organization culture, top management support and user training.

In consideration of the first objective which sought to determine how organization culture influence the implementation of ERP by Kiambu County Government. These findings are supported by (Bai & Cheng, 2010) that the implementation of ERP systems always mandate change in business process and organization culture. Organizational culture plays an important role during implementation of ERP systems and consequently its success (Bai & Cheng, 2010). It
enforces rules, values and practices at the organizational and individual levels (Bellot, 2011). Furthermore, most of respondents reported that organization culture was flexible. Nordheim, (2009) further explains that ERP viewpoint is process-based, rather than function-based therefore instigating disruptive organizational changes. ERP technology is also known for imposing rigid norms of workflows and particular practices upon workplaces and it is well noted that ERP demands on changes to organizational culture (Rabaa'i, 2009)

The second objective sought to determine the influence of top management support on implementation of ERP by Kiambu County Government. Zhang and Ngai 2008 cites that there is a significant role that is played by top management support on the implementation of ERP. The implementation of Enterprise Resource Planning Systems mostly are usually very largescale and require diverse and huge resources. Top management is required throughout the entire process of the implementation ranging from the initiation to completion stages (Al-Fawaz, K., Eldabi, T., & Naseer, A. 2010)

The top management is tasked with the role of provision of leadership amd appropriate resources which incorporates communication of the strategies of the company to all members of the organization. In addition, there is need to develop a form of understanding of the abilities and restrictions, demonstrate commitment ad come up with rational objectives and goals regarding ERP implementation

The third objective sought to determine the influence of user training on the implementation of ERP by Kiambu County Government. There is great need to offer training for an enterprise that desire to implement ERP. User training is important for any organization alongside onsite support for the managers and the employees during the implementation phase through an understanding of
the new business processes and how the system is changing the whole work procedures (Edmunds, Beidas & Kendall, 2013)

The findings of this study corroborate the findings of Parijat and Pranab (2009) who in their study found top management support and goals and objectives to be the most critical factors in implementation of IT projects.

The results of this study also uphold the findings of Sarker and Lee (2003) who emphasized social enablers such as strong committed leadership, open and honest communication and a balanced and implementation team as necessary antecedents to a successful ERP implementation.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the major research findings. Based on the findings presented, a conclusion was made which further guided the recommendations of the study. Finally, the chapter presents the areas where future studies can build on. The summary was of major findings from the descriptive and inferential analysis in the study.

5.2 Summary of Findings

The study sought to establish the determinants of enterprise resource planning implementation by county governments taking a case of Kiambu County Kenya. The specific objectives of the study were to establish how organization culture influences the implementation of ERP in the Kiambu County Government, to determine the influence of top management support on ERP implementation in Kiambu County Government and to establish how user training affect the implementation of ERP in Kiambu County Government. After collection of primary quantitative data, it was analyzed descriptively and also through correlation and regression analysis methods.

5.2.1 The influence of organization culture on the implementation of ERP in Kiambu County Government

The first objective of the study was to establish how organization culture influences the implementation of ERP in the Kiambu County Government. The findings are presented in Table 4.5 and it indicates that majority of the respondents, 80.2% agreed that the overall organizational culture of the employees in the county is that that accept new technology, 79.1% on the other hand agreed that organization culture is impacted at all levels of organization and individual in terms of
values, 65.1% agreed that organization culture is impacted at all levels of organization and individual in terms of rules, 82.6% agreed that organization culture is impacted at all levels of organization and individual in terms of procedures and all the respondents agreed that strategic positioning of roles and their interpretation by actors result to influence of implementation of ERPs.

The descriptive findings indicated that the organizational culture at Kiambu County is that of accepting new technology, better values, ethics, rules and procedures have also been developed to define the organizational culture. Regression findings showed that organizational culture has a positive and significant effect on implementation of ERP systems at Kiambu County.

5.2.2 The influence of top management support on implementation of ERP in Kiambu County Government

The second objective of the study was to determine the influence of top management support on ERP implementation in Kiambu County Government. The findings are presented in Table 4.7 and it was established that 68.2% of the respondents agreed that top management is essential is providing stewardship in ERP implementation, 48.9% agreed that the participation of top management in the whole process from inception to monitoring and evaluation is key to the achievement of the set organization goals and 76.7% on the other hand agreed that the top management team in the organization provide the needed financial resources to adopt a new technology. It was also established that 69.7% of the respondents agreed that the top management develops an understanding of the restrictions and abilities, demonstrating commitment, and establishing rational objectives for the ERP implementation while 44.2% agreed that top management support motivates the employees and become more productive including realizing their full potential. Descriptive findings revealed that the top management is essential is providing
stewardship in ERP implementation, participation of top management in the whole process from inception to monitoring and evaluation is key to the achievement of the set organization goals, the top management team in the organization provide the needed financial resources to adopt a new technology, develops an understanding of the restrictions and abilities, demonstrating commitment, and establishing rational objectives for the ERP implementation and also motivates the employees and become more productive including realizing their full potential. Regression findings showed that top management support has a positive and significant effect on implementation of ERP systems at Kiambu County.

5.2.3 The influence of user training on implementation of ERP in Kiambu County Government

The third objective of the study was to establish how user training affects the implementation of ERP in Kiambu County Government. It was established that 57% of the respondents agreed that implementation of ERP largely rely on the extent to which a trainee has mastered a specific IT tool in terms of knowledge and skills, 52.3% agreed that for an employee to learn how an ERP works and the use, there is a need for end user training and 67.4% agreed that the organization has set aside funds to train its employees on IT related skills. It was also established that 60.5% of the respondents agreed that the organization conducts workshops to enhance the ICT skills of the employees and 81.4% agreed that a lot of time and money is required to ensure end users are trained well.

The descriptive findings indicated that in Kiambu county, the implementation of ERP largely rely on the extent to which a trainee has mastered a specific IT tool in terms of knowledge and skills, user training is important, the organization has set aside funds to train its employees on IT related skills and also conducts workshops to enhance the ICT skills of the employees. The regression
findings showed that user training has a positive but not significant effect on implementation of ERP systems at Kiambu County.

5.3 Conclusion

The findings of the study led to the conclusion that better organizational culture in terms of better methodological support programs, regular monitoring and on-going consultation leads to a significant improvement in implementation of ERP systems at Kiambu County. The study also concludes that an increase in top management support in terms of optimal resource allocation, activity rescheduling and employee motivation leads to a significant improvement in implementation of ERP systems at Kiambu County. Lastly, the study concludes that an increase in user training in terms of lifelong learning, ad-hoc development programs and training methods and outcomes leads to an insignificant improvement in implementation of ERP systems at Kiambu County.

5.4 Recommendations

The following were the recommendations of the study:

1. The study recommends that the county government of Kiambu and other county governments need to create a conducive organizational culture that is highly ethic, with good values, procedures and policies which can support implementation of any new technology or policy.

2. The study also recommends that top management supports organizational activities in terms of optimal resource allocation, activity rescheduling and employee motivation in order to realise a success in implementation of their programmes and policies.
3. The study recommends that counties need to enhance user training by conducting more workshops, on the job trainings, seminars and field trips in order to realise the significant benefits of user competence when there is a need to implement a new technology in the organization.

5.7 Areas for Further Study

The study focused on three variables affecting implementation of ERP in county governments which creates a conceptual knowledge gap and opens up an avenue for other studies to focus on other factors other than the three some of which may be political interference, reliance on government exchequer and leadership. The study also focused on a case of Kiambu County only out of the 47 counties in Kenya, even though the reasons for focusing on Kiambu County are justified, this creates a contextual knowledge gap and hence there is a need to focus on a survey of other counties to fill this contextual knowledge gaps. Future studies can also aim to use both questionnaires and interviews so as to enhance the depth of the information they collect and analyze by making use of mixed research methods.
REFERENCES


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APPENDICES

APPENDIX 1: QUESTIONNAIRE:

This questionnaire is divided into five sections that should take you only a few moments of your time to complete. Please respond by ticking the appropriate box or filling in your answers in the blank spaces provided. This is an academic exercise and all information collected from respondents will be treated with an utmost confidentiality. Thank you very much for your cooperation.

Section A: General Information.

Instructions

Kindly tick or write in the spaces provided as appropriate.

1. Kindly indicate your gender

Male [ ]  Female [ ]

2. For how long have you worked in the County government offices?

6 months and below [ ]

1-2 years [ ]

3 years and above [ ]

3. What is your position in your organization

Management [ ]

Senior officers [ ]

Other staff [ ]

4. This subsection is concerned with the investigation whether organization culture has an influence on the implementation of ERP systems. Please mark (x) or (√) in the box which best describes your agreement or disagreement.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The overall organizational culture of the employees in the county is that that accept new technology</td>
<td></td>
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<tr>
<td>Organization culture is impacted at all levels of organization and individual in terms of values</td>
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<tr>
<td>Organization culture is impacted at all levels of organization and individual in terms of rules</td>
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<tr>
<td>Organization culture is impacted at all levels of organization and individual in terms of procedures.</td>
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<tr>
<td>Strategic positioning of roles and their interpretation by actors result to influence of implementation of ERPs</td>
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5. What is the magnitude through which organization culture has supported the implementation of ERP?

Very large extent [ ] Large extent [ ] Small extent [ ] No extent at all [ ]
Section C: Influence of Top Management support and Enterprise Resource Planning Implementation in Kiambu County Government.

6. To what extent has senior management been involved in the implementation of ERP?

Very large extent [ ]  Large extent [ ]  Small extent [ ]  No extent [ ]

7. What kind of support does top management prioritize on most?

Financial [ ]  Personnel resource [ ]
Technological resources [ ]  Time resource [ ]

8. This subsection is concerned with the investigation whether top management support has an influence on the implementation of ERP systems. Please mark (x) or (√) in the box which best describes your agreement or disagreement.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management is essential in providing stewardship in ERP implementation</td>
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<tr>
<td>The participation of top management in the whole process from inception to monitoring and evaluation is key to the achievement of the set organization goals</td>
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</table>
The top management team in the organization provide the needed financial resources to adopt a new technology.

Top management develops an understanding of the restrictions and abilities, demonstrating commitment, and establishing rational objectives for the ERP implementation.

Top management support motivates the employees and become more productive including realizing their full potential.


9. This subsection is concerned with the investigation whether user training has an influence on the implementation of ERP systems. Please mark (x) or (✓) in the box which best describes your agreement or disagreement.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>Implementation of ERP largely relies on the extent to which a trainee has mastered a specific IT tool in terms of knowledge and skills</td>
<td>1</td>
<td>2</td>
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For an employee to learn how an ERP works and the use, there is a need for end user training.

The organization has set aside funds to train its employees on IT related skills.

The organization conducts workshops to enhance the ICT skills of the employees.

A lot of time and money is required to ensure end users are trained well.

This subsection is concerned with the investigation of enterprise resource planning. Please mark (x) or (√) in the box which best describes your agreement or disagreement.

10. To what extent has the organization implemented the following ERP systems? 1. Not at all, 2. Low extent, 3. Moderately, 4. Great Extent, 5. Very Great Extent

<table>
<thead>
<tr>
<th>ERP Implementation</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>The organization is able to make financial savings due to the presence of ERP</td>
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<td>The clients are satisfied because of the services rendered through ERP</td>
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<td>The clients complaints has significantly gone down after the implementation of the ERP</td>
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<tr>
<td>Statement</td>
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<td>---------------------------------------------------------------------------</td>
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<tr>
<td>Our services delivery has significantly improved because of ERP</td>
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<tr>
<td>Our operating performance has gone higher because of ERP</td>
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<tr>
<td>Our operating costs has significantly reduced because of ERP</td>
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</tr>
</tbody>
</table>
KENYATTA UNIVERSITY
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E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

Our Ref.: C153/CTY/PT/32812/2015

DATE: 17th September, 2018

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR KELVIN KAMAU MACHARIA – REG. NO.
C153/CTY/PT/32812/2015.

I write to introduce Mr. Kelvin Kamau Macharia who is a Postgraduate Student of this University. He is registered for MPPA degree programme in the Department of Public Policy and Public Administration.

Mr. Kelvin intends to conduct research for a MPPA Project Proposal entitled, “Determinants of Enterprise Resource Planning Implementation by County Governments: A Case of Kiambu County Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. PAUL OKEMO
DEAN, GRADUATE SCHOOL
Ref. No: NACOSTI/P/18/84954/26149

Date: 30th October, 2018

Kelvin Kamau Macharia
Kenyatta University
P.O. Box 43844-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Determinants of Enterprise Resource Planning implementation by County Governments: A case of Kiambu County Kenya” I am pleased to inform you that you have been authorized to undertake research in Kiambu County for the period ending 29th October, 2019.

You are advised to report to the County Commissioner and the County Director of Education, Kiambu 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.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kiambu County.

The County Director of Education
Kiambu County.