

**CHALLENGES FACED BY KENYAN DEPOSIT TAKING SAVINGS AND
CREDIT COOPERATIVE SOCIETIES (SACCOS) IN THE
DEPLOYMENT OF ENTERPRISE RESOURCE PLANNING (ERP)
SYSTEMS**

BY

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DECLARATION

This research project is my original work and has never been presented for a degree in any other university.

Signature.....Date.....

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This research project has been submitted for examination with my approval as the University Supervisor.

Signature.....

Date.....

DEDICATION

I dedicate this research study first to God and then to my family members for the immense support that I have received during the period of study.

ACKNOWLEDGEMENT

My appreciation goes to the Almighty God for the much needed strength, courage, health and resources. I greatly appreciate the support and encouragement I have received from my family – may God bless you all. To all my friends and colleagues at KCA University, I appreciate your support and encouragement.

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DEFINATION OF TERMS

Information system is an academic study of systems with a specific reference to information and the complementary networks of hardware and software that people and organizations use to collect, filter, process, create and also distribute data.

Enterprise resource planning (ERP) is business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources.

LIST OF ABBREVIATIONS

BPR -	Business Process Reengineering
DOI	Diffusion of innovation
ERP	Enterprise Resource Planning
ICT	Information, Communication and Technology
IS	Information Systems
MIS	Management Information Systems
SACCO	Savings and Credit Cooperative Organizations
SAP	Systems Applications Products
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model

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ABSTRACT

ERP systems help a company achieve competitive advantage. Despite the promises and the continued popularity of ERP Systems, evidence demonstrates that there are challenges that face their deployment. The study purposes to investigate the challenges facing the deployment of ERP systems. The objective of the study was to investigate the challenges facing the deployment of ERP systems by SACCOs in Kenya. The specific objectives were: to determine the challenges encountered in the procurement of ERP systems by Kenyan SACCOs; to determine the challenges in business process re-design in the deployment of ERP systems by Kenyan SACCOs; to determine the human resource challenges deployment of ERP systems by Kenyan SACCOs; to investigate the challenges in the integration of various ERP systems to business functions by Kenyan SACCOs. A descriptive research design was employed. The target population was the 176 deposit taking SACCOs licensed by SASRA. Simple random sampling was used to select the sample of 60 SACCOs. Data was collected by the use of a questionnaire. Out of the 60 questionnaires sent, 51 questionnaires were filled therefore representing a 85% response rate. Quantitative was analysed through Descriptive analysis. Qualitative data was analysed qualitatively through content analysis. Results were presented in form of tables and graphs. Frequency tables, cumulative percentage tables, bar charts; pie charts were used to present the findings. The study concludes that inco-operation of technology in SACCO operations has seen SACCOs improve efficiency, curb fraud and improve service efficiency to clients. The study recommends that organization's management must strive to improve employees' knowledge and skills to ensure successful ERP deployment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The deployment of enterprise resource planning (ERP) software has become increasingly more common in a lot of today's businesses. The world has become more digitized. Businesses are depending on technology to help them enhance their business processes. Organisations require information systems that can handle massive workloads. This is where Enterprise Resource Planning (ERP) systems come into play. It is adopted in many firms in attempts of improving business performance. The performance of business can be gauged by the financial gains and operational improvements. The benefits suggest that there is a direct relationship between ERP system and business performance (Velcu, 2007).

Enterprise Resource Planning (ERP) has been given various definitions. According to Shoemaker (2003) ERP is a modular software package designed for automating and integrating major business practices, sharing common data and process across the entire enterprise by eliminating the fragmentation of information. ERP is a software that handles the enterprise total information needs in an integrated fashion, by improving its data access and accuracy as well as enhancing other business functionalities, (Hawking & Brendan, 2004).

According to Chibelushi (2008), the successful operation of many companies in most industries is becoming ever more dependent on the ability of the company to adopt and utilize ICT based systems. This inextricably requires such prerequisites such as the knowledge of business and IT, substantial investment in IT infrastructure, investments in training in new technologies and other related issues. Many companies lack these factors.

ICT adoption in fact has been considered to be a complex problem by SMEs. SACCOs have had to grapple with challenges in deployment of ERP systems. Small and medium enterprises (SMEs) and organisations depend on information and communications technology (ICT) to help drive competitive advantage.

Mumanyi (2014) recommended that developing and increasing the use of Information technology (IT) will provide cooperatives including SACCOs with the networking and innovative opportunities to strengthen their niche and competitive advantage. ICT which ERP is part of is becoming more complex, and SMEs will continue to become more reliant on ICT-based solutions to compete effectively in today's demanding business climate. Due to scarce resources organisations with not the state of the art ICT resources and personnel will experience challenges in IT management and maintenance. Routine system monitoring and maintenance can eat up time and resources that could be utilised in running the business more efficiently and make it more competitive. This is a significant challenge for the sector, given that some SACCOs have several thousand clients and a wide variety of products such as microfinance loans and savings. Lack of modern and up-to-date ERP systems is therefore a major constraint in their operations.

Mwenje (2013) observed that banks that did not deploy ERP system would not be in a position to provide their customers with efficient services and products thus would lose their competitive advantage. Also SACCOs not being competitive as banks and other financial institutions that are deploying world class integrated ERP systems. SACCOs face stiff competition and the only way to survive is by deploying the latest ERP systems since it is an integral part of the SACCO business services provision. In modern business, ICT is a key component as a strategic key in the attainment of the comparative advantage. Information

and communication technologies (ICT) systems are tools that should be exploited to enhance service delivery in SACCOs. They not only create competitive advantage but also enhance business growth and stability. While quite a number of SACCOs have deployed ERP systems, they have not fully leveraged to the advantage of their members. This is due to poor or weak deployment of ERP systems.

1.1.1 SACCOs in Kenya

SACCO is an acronym for Savings and Credit Cooperative Organizations. The Uganda Cooperative Savings and Credit Union states that a SACCO is an organisation that is governed by the members who own it due to their common shared situation. SACCOs are part of the co-operative movement but they specialise in provision of financial services to their members. A Savings and Credit Co-operative (SACCO) is owned by its members who democratically run it. As per the cooperative Act Cap 490, each member has an equal vote.

In Kenya non deposit taking SACCOs operate under Co-operative societies Act of 2008 which is supervised by the state department of co-operatives under the Ministry of Commerce and Industrialisation. SACCOs that are deposit taking SACCOs that operate front office services are licensed, supervised and regulated by Sacco Societies Regulatory Authority (SASRA).

As per the WOCCU (WOCCU, 2014) statistical 2014 report, Kenya had 4,965 SACCOs with 5,103,231 members. This was a penetration of 20.5 percent of the adult population. These SACCOs had members' Savings & Shares of USD 3,266,230,227, Loans of USD 4,287,967,019, Reserves of USD 390,913,619 and Assets of USD 5,069,054,967. As per the SASRA report in January 2016, 176 deposit taking SACCOs were licensed to operate in 2016.

As per the SARSA report (2014), Kenya's co-operative movement was ranked number one in Africa and eleventh in the world on the strength of savings.

1.1.2 Deployment of ERP systems

Thai (2011) noted the key benefits of ERP deployment as automation, efficiency and information sharing. Successful ERP project does reduce operating costs, provide greater accuracy in forecasts, speed production cycles, and greatly enhance customer service thus enhancing the competitive advantage of a firm (Cheng and Wang, 2006).

As per Singhla (2014) the concept of ERP began in 1960s with Material Requirements Planning (MRP) systems that assisted manufacturing companies in planning and scheduling. The first ERP system was created in 1972 at Mannheim Germany, by five former IBM employees who founded the company SAP to produce and market standard software for integrated business solutions. In the early 1980s, MRP evolved into new Manufacturing Resource Planning (MRP-II), introducing the concept of integrating finance with manufacturing work-in processes.

ERP systems are built with a clear separation of functional components. While the databases are managed in server machines, the user utilises graphical user interface (GUI) on client machines."The databases are built using relational database technology. Relational database systems have enabled the vendors to put in the necessary flexibility in terms of business logic and data structures to support parallel business practice implementations. These technologies in general have allowed the users to architect the system in such a way that installation, customisation and extensions are possible in shorter timeframes" (Singhla, J, 2014). This is the "thin client/server (C/S) technology or client/fat server (C/FS) architecture, creating a decentralized computing environment. In a C/S system a number of client devices operated

by end users such as desktop PCs request services from application servers, which in turn get the requested service-related information from the database servers. The requests may be simple data files, data values, communication services, transaction processing or master file updates" (Rashid et al, 2002).

During the 1990s ERP vendors started to add more modules and functions as add-ons to the core modules giving birth to the "extended ERPs." These ERP extensions include advanced planning and scheduling (APS), e-business solutions such as customer relationship management (CRM) and supply chain management (SCM) (Rashid et al. (2002).

As per Vliet (2013) ERP supports business activities by integrating all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs.

As per Singhla (2014), ERP solutions does yield benefits in Integrated processes and information systems, reduced complexity of application and technology portfolios, authoritative data source and Reduced data redundancy/duplicative data entry and more effective and efficient business process and tool for real time decision making.

Thai (2011) noted that despite the clear benefits, ERP implementations can be considered high risk IT projects due to a number of reasons like Implementation length, Implementation budget, Measurable benefits and Implementation change management.

1.2 Statement of the Problem

Even though ERP systems are growing in popularity, there evidence that is accumulating to demonstrate that obtaining benefits from an ERP is not as straightforward as those selling and promoting such systems would like us to believe. While the benefits of ICT in SACCOs

cannot be disputed, there are several concerns about the success of deployment of ERP by SACCOs.

Garg (2010) noted about 75% of ERP implementations were failures due "to inadequate resources, end-user resistance, poor user involvement of user on ERP project and high attrition rate of project team members"(Grag, 2010, page 43).

Panorama Consulting Solutions (2015) report noted that 21% of ERP implementations were failures. Among the reasons noted for failure included lack of sufficient organizational change management or business process reengineering and end-user resistance and low system usage.

Catersels, Helms and Batenburg (2010) suggested an explanation for the variation in failure rates was due to the definition of failure. Where one author only defines failure when the whole project is terminated, the other author defines failure when the objectives of the project are not reached within time and/or budget.

Many firms have experienced challenges in the deployment of ERP systems. It is therefore important for companies planning to deploy ERP systems to understand the challenges facing deployment in order to minimize the risk of failure and to optimize their ERP implementation. There are numerous challenges faced by SACCOs in the deployment of ERP systems.

Sitati (2015) recommended that more research needs to be done to show the challenges affecting the ERP implementation and the various measures to overcome these challenges. This is because many SACCOs have taken long to embrace the use of ERP systems. This

study will attempt to establish the challenges that SACCOs in Kenya face in the deployment of ERP to establish possible recommendations for successful ERP implementation.

Ghosh (2012) summarised the major causes of ERP failure are lack of clarity on functional requirements, lack of commitment from management, improper package selection, inadequate Training, miscalculations & expectations and incompatibility with business processes.

Makori (2013) noted that poor ICT systems and underdeveloped MIS is a huge challenge facing regulatory compliance in Kenyan SACCOs. Sitati (2015) observed that ERP systems are vital to SACCOs' operations as they assist them achieve a lot of values although it depends on the level of implementation.

Moon (2007) notes that implementing an ERP system is a major project requiring a significant level of resources, commitment and changes throughout the organisation. Often the ERP implementation project is the single biggest project that an organisation has ever launched.

Various SACCOs have deployed ERP systems with various degrees of success. While a few have succeeded, most have had to change systems frequently hence losing the value created by robust upgradable ERP systems with high scalability and interconnection to new and emerging ICT like mobile money. Davenport (1998) highlighted that ERP project deployment is a complex exercise; therefore more research is needed to identify challenges among Kenyan SACCOs to identify the challenges faced by Kenyan deposit taking SACCOs in ERP implementations. This project proposal will analyse and compose the gathered information to develop guidelines and recommendations that hopefully can be used during ERP systems deployment in Kenyan SACCOs.

1.3 Purpose of the Study

With the emergence of ERP systems, it is possible to improve efficiency and effectiveness of internal administration within SACCOs. ERP deployment has however faced a lot of challenges. For this reason the study purposes to investigate the challenges facing the deployment of ERP systems by SACCOs in Kenya to come up with best practices that will ensure successful deployment of ERP systems.

1.4 Objectives of the Study

The objective of the study will be to investigate the challenges facing the deployment of ERP systems by SACCOs in Kenya. To assist in achieving the main objective, the specific objectives will be:

- i. To determine the challenges encountered in the procurement of ERP systems by Kenyan SACCOs
- ii. To determine the challenges in business process re-design in the deployment of ERP systems by Kenyan SACCOs
- iii. To determine the human resource challenges deployment of ERP systems by Kenyan SACCOs

1.5 Research Questions

- i. What are the challenges encountered in the procurement of ERP systems by Kenyan SACCOs?
- ii. What are the challenges in business process re-design in the deployment of ERP systems by Kenyan SACCOs?
- iii. What are the human resource challenges in the deployment of ERP systems by Kenyan SACCOs?

1.6 Value of the Study

The findings are of importance to SACCOs in Kenya by providing information on the challenges facing the deployment of ERP systems. The insight will help them to take actions to mitigate these challenges. This study will be a resource document guide to SACCOs deploying enterprise ERP systems as to the best practices in ERP systems procurement, implementation and utilization. To remain competitive, access cheaper savings and increase membership.

The study will also be important to other industries that use or want to deploy ERP systems or may be facing similar challenges. Organizations and other related government agencies in other industries will also benefit from the study. The findings of this study will enrich existing knowledge and hence will be of interest to other academicians and researchers when they seek to carry and explore out further investigations. It will provide basis for further research.

1.7 Scope of the Study

In light that it is mandatory for SACCOs licensed by SASRA to deploy ERP systems, the study will investigate the challenges faced by Kenyan SACCOs in the deployment of ERP systems among the 176 SACCOs licensed by SASRA in 2016 (SASRA 2016). The study will focus on the challenges that face SACCOs in ERP systems procurement, business process re-engineering, human capital and systems integration by Kenyan SACCOs in the deployment of ERP systems.

1.8 Limitations of the Study

The study was limited to deposit taking SACCOs in Kenya. However, there are only 176 deposit taking SACCOs in Kenya were licensed by SASRA in January 2016 (SASRA, 2016), yet as per WOCCU statistical 2014 report, there were 4,965 SACCOs in Kenya. The deposit taking SACCOs is required by SASRA to deploy computer systems to facilitate on time reporting. The study may also be limited to the degree of precision of the data to be obtained from a sample of the deposit taking SACCOs and not the entire 176 deposit taking SACCOs in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is concerned with the review of pertinent literature. It covers both empirical literature and theoretical.

2.2 Theoretical Review

Some of the leading theoretical approaches to the study of ERP systems are the model of PC Utilization, Technology Acceptance model and the innovation diffusion theory.

2.2.1 Technology Acceptance Model

The Technology Acceptance Model (TAM) was proposed by Fred Davis in 1985 attempted to explain and predict the utilisation of systems. Davis identified three user motivation factors, ease of use, perceived usefulness and attitude towards using the system (Chuttur, 2009).

Davis (1989) developed the Technology Acceptance Model to attempt to identify what factors cause people to accept or reject information technology usage. He suggested that perceived usefulness and perceived ease of use were the vital individual beliefs that would explain how people accept or reject usage of information technology. He defined perceived usefulness as the level that one believes that using a particular system would improve their job performance. Perceived ease of use was as level that one believes that using a particular system would reduce the effort to be used. The two behavioural beliefs, perceived usefulness and perceived ease of use, then lead to individual behaviour intention and actual behaviour. Davis found that perceived usefulness is the strongest predictor of an individual's intention to

use an information technology. The research study borrows heavily on the two beliefs of perceived usefulness and perceived ease of use.

Sternad and Bobek (2013) noted that the technological acceptance model (TAM) is one of the most widely used models for explaining the behavioural intention and actual usage and can improve our understanding of how influence on actual usage could help increase efficiency and effectiveness of ERP system use.

Gyampah and Salam (2003) found significant support that both project communication and training affect beliefs in the benefits of the ERP system. The key roles that communication plays include providing and obtaining information and creating understanding among organizational participants that leads to the formation of shared beliefs among organizational participants, especially those that are the targeted users of the innovation. Training provides the hands-on mechanism that allows users of the ERP system to explore the system both from a technical standpoint as well as from a functional perspective. It allows the users to obtain first hand information and experience.

While guided by the Technology acceptance model, the researcher will sought to establish the challenges facing the deployment of ERP systems by deposit taking SACCOs in Kenya.

2.2.2 The Model of PC Utilization

The model was developed by Thompson, Higgin and Howell in 1991. This model was resulted from individual behaviours model by Triandis (1971). Individual behaviours model held that factors determining one's behaviours included attitudes, social norm, habits and expected results of the behaviours. Attitudes cover cognitive, affective and behavioural components. In the model of PC utilization factors affecting PC utilization include perceived

consequences, affect, social factors and facilitating conditions. Perception results cover complexity, job fitness and long-term consequences.

Thompson et al. (1991) had empirical study of knowledge workers in manufacture industry. The findings show only society, complexity, job fitness and long-term results have significant influence on PC utilization. Though Model of PC Utilization relations were not proved to exist, scholars still had study based on MPCU framework.

Thompson, Higgins and Howell (1994) added users' experience into MPCU to explore adjustment results of experience on dimensions of PC utilization models; Al-Khaldi and Wallace (1999) analyzed knowledge workers' behaviours of PC utilization in Saudi Arabia with MPCU.

The original MPCU model consisted of six factors that were theorised to explain technology adoption. These determinants were job-fit, complexity, long-term consequences, affect, social factors and facilitating conditions. Facilitating conditions are objective institutional factors that make an act, such as technology adoption, for the individuals easier to accomplish. For example through proper training and support some of the potential barriers to adoption and usage can be reduced or even removed completely. .

Thompson et al (1991) stated that providing support for PC users may be one type of facilitating condition that influences system utilization. By training users and assisting them when they encounter difficulties, some of the potential barriers to use can be alleviated or eliminated.

While guided by the Model of PC utilization, the researcher will sought to establish the challenges facing the deployment of ERP systems by SACCOs in Kenya.

2.2.3 The Innovation Diffusion Theory

Innovations diffusion theory was coined by E.M Rogers in 1962. It is a widely used theory in social science disciplines. The theory does have its basis in communications and attempts to explain how an idea or product that gains momentum does quickly become adopted by the other parties who are in the same environment among the population or social system. This diffusion results in other users taking up the new idea or innovation. However, the adoption in the theory does acknowledge that the users react differently to an innovation compared to previous products or innovations, thus the diffusion process. As Cited by Ndung'u and Kyalo (2015), diffusion of Innovations Theory suggests that “theoretically, about 49% to 87% of the variance of an innovator’s rate of adoption” is clarified by several “factors including its perceived attributes, type of innovation decision, and nature of social system which the innovation is diffusing and the extent of the agents’ promotion efforts in diffusing the innovation” (Ndung'u and Kyalo, 2015, p. 5).

The theory does provide insight to developers and users in analysing and evaluating implementations of various ERP system projects. As argued by Rogers (1995), an innovation such as use of Enterprise systems in management of institutions is regarded as a technological innovation. This is paradigm shift to integrated information systems from stand-alone information systems. The theory advanced by Rogers (2003) does confirm that usage in understanding technology diffusion and adoption is growing and widespread.

As cited by Medlin (2001), the theory does provide insight in investigating implementation of technology in higher education environments. The theory does provide vital insight in evaluating the experiences of public universities in Kenya in their implementation of ERP systems.

As cited by Ndung'u and Kyalo (2015), the research study heavily borrowed from the “third (decision) and fourth (implementation) stages in the DOI theory”. Kenyan public universities which had deployed ERP systems were “interpreted as an innovative strategy in the study, various institutions are assumed to have undergone the first, second, and third processes in the diffusion of innovations theory (Ndung'u and Kyalo, 2015, p. 6). These include gathering knowledge about the ERP systems, persuading stakeholders to support the selected systems in automating their institutional operations and making the decision to implement the systems.

According to Nanayakkara, Kusumsiri and Perera (2016) organizations invest millions of dollars to implement a suitable ERP system with enormous effort consuming hundreds man months of an implantation team to harvest these benefits. Successful implementation of ERP heavily depends on human-factors.

Nanayakkara, Kusumsiri and Perera (2016) concluded that Diffusion of Innovations theory mentions that Early Adopters are individuals who are expeditious and more tactful in adapting to a new technology and who have the highest degree of opinion leadership. This clearly shows that there is a significant impact to success of the ERP implementation project if ERP implementation team consists of high number of Early Adopters.

While guided by the diffusion of innovations theory, the researcher will sought to establish the challenges facing the deployment of ERP systems by deposit taking SACCOs in Kenya in how well the users were trained and where the initial users able to train other new users.

2.3 Empirical Review

There are various studies done by researchers on the challenges and success factors of ERP system implementation. For example Makori (2013) noted that poor ICT systems and underdeveloped MIS is a huge challenge facing regulatory compliance in Kenyan SACCOs. Another researcher, Sternad and Bobek (2006) noted that failure rate in ERP implementations is high because organizations thought all they had to do was purchase ERP and did not deploy adequate resources in implementing them. This high rate of failure means that organisations must be careful with their planning and implementation of ERP. There are a lot of risks associated with ERP implementation due to their nature of being organisation wide, complicated and consuming huge resources. Some of these studies are expounded below.

2.3.1 Challenges In The Procurement of ERP Systems By Kenyan SACCOs

Procurement of information systems (IS) and related services is challenging compared to procurement of goods and services that are standardised. Information systems often need to be customized to the needs of the public sector (Keiichiro & Hajime, 2005).

According to Moe and Päivärinta (2013) procurement of standardized goods and services is simple while procurement of information systems (IS) and related services is complex and challenging. The public sector also faces extra challenges from the private sector as they are bound by strict regulations concerning procurement and public tendering. SACCOs in Kenya are bound to observe and adhere to the Public procurement and disposal Act and its regulations and rules. Public procurement is unique and has legal and technical complexities which are magnified when procuring new or unknown technology.

The key challenge that public information technology (IT) managers face today is procurement of IS, i.e. hardware and software. IS procurement is more difficult than the procurement of other goods and services since availability of IT suppliers is limited and the complex requirements of IS's. An public IS procurement process includes: forming the procurement committee, specifying hardware/software requirement, identifying potential vendors, launching a competitive tender program, issuing a purchase order, and receiving the IS products and services. An IS procurement process does usually begins with identification of user needs for various departments. The purchase requisitions are provided to the authorising authority. Once approved, IS procurement is done by the procurement committee which in most cases includes user representatives, procurement personnel and IT department representatives. In this initial stage, there are various potential risks which include: a lack of common goals among procurement committee members who are inadequately equipped with skills and experiences in IS procurement and contracting, and obscure authorization structure (Pan et al., 2006).

In public procurement, except when the law allows for occasional direct negotiations and purchase with preferred vendor or vendors, typically the purchasing contract is awarded through a competitive tender program. Competitive tender programs are widely adopted in IS procurement within the public sector though this is less practised in the private sector as it not a requirement of the law. Competitive tender programs are required by law as there are more transparent and accountable. While the lowest cost appears to be the main decision criterion, it not the only criterion used. Other criteria such as product or software quality are often preferred over price. Potential risks include political manipulation of tender outcome,

uncompetitive vendor bid, bribery and kickbacks, and loss, alteration, or unauthorized disclosure of bidding price data (Mani et al., 2006).

Oketunji (2006) suggested a criterion for selecting which software to procure. He suggested that the decision includes looking the importance of the software. Such that, the software should facilitate users to be more efficient or provide better services; Is the software multipurpose, versatile, and open-ended; does it appeals to a wide range of ages and interest; Is it easy to use; does it encourages creative, individualized, original input; does it employ tasteful and attractive graphics that are non-violent, free of gender or ethnic stereotypes. He went further to say that firms should avoid software that: Limits user interaction to pressing the return key or making a choice between presented options; Has large amount of text on the screen; which cause users to lose control of sound levels, timing, or other intrusive functions and features; Presents content in a violent, racist, or condescending fashion; allows more easily through another medium or through a more versatile software product duplicates experience that-is just as easily; Is little more than an automated workbook; Repeats exaggerated or lengthy graphics displays that have little to do with content.

Rashid et al (2002) states that various software vendors provide different systems with some degree of specialty but the main functionalities are similar among most vendors. Some of the core ERP modules found in the successful ERP systems are: Accounting, Financial, Transportation, Manufacturing, Production, Sales & distribution, Human resources, Supply chain, Customer relationship management and E-Business. Procuring the most useful ERP system is a challenge.

2.3.2 Challenges In Business Process Re-design In The Deployment Of ERP Systems By Kenyan SACCOs

Weske (2007) described the BPM as a combination of ideas, techniques, methods and concepts that provide assistance for the business process design. However, these characteristics of the business process do facilitate more specific and stringent requirements on business process management systems.

Jeston and Nelis (2008) revealed that the standard BPMS will perform a clear business process for employees and make them operate and implement their responsibility automatically and easily so that BPMS improves their working productivity. Secondly, web-based technology has been used in BPMS so that the information flow will be conveyed to right place to right person in right time.

Initially, many firms address BPR through IT tools such as document image processing and expert systems. However with ERP systems being the core data collection and storage systems for organisations, BPR has long been widely recognized as an important precedent step to minimize the failure of ERP systems implementation (Abdolvand et.al 2008).

Tao (2008) put forward that most BPR endeavours fail because of a misunderstanding of BPR. A lot of managers inadvertently rush in for BPR rather than approaching it as a specialised discipline in engineering. The author pointed out the other failure factors, such as poor approach of BPR mistaking it with Total Quality Management (TQM), unrealistic expectations, lack of top management commitment, and over reliance on IT.

According to a study conducted by KPMG (as cited in McNamara, 2002), BPR failure is caused by technical issues, inexperience in scope and complexity of the challenge at hand, failure to define objectives, lack of communication systems that inform the management of

the problems, project management failure to respond to challenges adequately, organizational resistance to change, lack of business ownership, significant cost overruns, significant schedule overruns, and package failure to meet expectations.

Stoica *et al.* 2004 highlighted that mistakes by top management during large-scale change are a major cause for failure; among them ignoring the impact of change on the employees. The study established that 70% of BPR initiatives do not succeed because of poor leadership by management, resistance to change and impractical scope and prospect.

Thomas (2008) stated there are three levels of business process change: first one is process re-engineering which scans major threats or opportunities in the external business environment and proposes a re-think of the large-scale process at the strategic level; second one is process redesign which focuses on medium-sized processes improvement; third one is process improvement at tactical level, such as a Six Sigma approach. That means the business process change needs to reflect the business requirements and fulfil business objectives.

Ahmad et.al (2007) put forward some of the causes of BPR failure as the inability of the employees and the management to recognize the benefit of BPR in their organization, the overreliance on Information Technology to enable BPR, depending heavily on outsiders to effect BPR and neglecting the employees, lack of standard methodology, and lack of an understanding BPR among others. He puts forward BPR success factors as: teamwork and quality culture, quality management system and satisfactory rewards, effective change management, less bureaucracy and more participation, IT, effective project management, and adequate financial resources (Ahmad, Francis and Zairi, 2007)

In a study by Habib (2011) it was supported with evidence that developing cross-sectional teams and encouraging teamwork is a source for successful implementation of BPR. Similarly in a study by Habib and Wazir (2012) it was found that educating employees and providing them proper training help in successful implementation of BPR in public sector.

Magutu, Nyamwange, and Kaptoge (2010) argued that manufacturing as well as human resource practices within an organization influencing the success and failure ratio of BPR. Further in their study based on African firm suggested that among the HR functions project teamwork and top management plays vital role in success and failure of BPR. Firm can achieve competitive advantage through cost, management, productivity and customer services. This can only be possible when employees are informed and taken on board in the change process.

Thai (2011) concluded that one of the major reasons for ERP deployment challenges was that most organizations cannot completely manage the business transformation aspects of ERP. Businesses constantly misjudge their change management ability and internal communication.

Seo (2013) noted that since ERP implementation affects entire organizations such as process, people, and culture, there are a number of challenges that companies may encounter in implementing ERP systems.

As per Malhotra (1998) IT and BPR have recursive relationship. IT capabilities do support business processes, and business processes should be in terms of the capabilities IT can provide.

Rock (2003) noted that ERP systems are process oriented and, due to their highly interconnected nature, require organizations that implement these types of system to adopt a process-oriented philosophy. Therefore, if an organization has not undergone an organization wide reengineering exercise, they will have to do so. Even if there are elements of a process orientation within an organization, it is likely that a certain level of reengineering will occur.

2.3.3 Human Resource Challenges in The Deployment Of ERP Systems By KenyanSACCOs

In order to facilitate the successful implementation of information system in organizations, and to avoid adoption failure, the businesses should provide employees with computer education and training courses. IT acceptance among users of IT who form part of a firm employee's base will impose positive impacts on IT adoption, (Apulu and Latham, 2009).

According to Mumanyi (2014), one of the general constraints facing SACCOs in Kenya is lack of education and skills among staff and members. Ndung'u and Kyalo (2015) observed to achieve desired levels of service delivery in institutions; ERP implementation required optimal combination internal and external resources and techniques. User training for internal staff which is supported external technical support from vendors in implementing is vital. This ensures that there is adequate technology transfer and capacity building for staff tasked with implementation of ERPs.

The lack of knowledge on how to use technology and low computer literacy are factors that affect the adoption of ICT. In summary, there is a need for computer education. Owner-managers need to attend training programs that will enlighten them on the benefits associated with the use of ICT. In addition, there is the general issue of skills and training. The skill

deficiencies appearing in SMEs include not only technical abilities but also management skills (Arendt, 2008).

Sarker & Lee (2003) emphasized social enablers such as strong committed leadership, open and honest communication and a balanced and empowered implementation team as necessary antecedents to a successful implementation. On the other hand, Gargeya and Brady (2005) argue that the reason for the many failures that have occurred in ERP implementation is that companies have concentrated exclusively on the technical aspects while ignoring the changed management elements. The lack of appropriate cultural and organizational readiness was found as the most important factor contributing to the failure of an ERP project.

According to Nyagah (2006) critical success factors for successful ERP implementation are teamwork and composition of the ERP team, good communication and coordination between implementation partners, partnership and trust ,change management program and culture ,user training, top management support, business plan and vision, project management, software development, testing and troubleshooting, monitoring and evaluation of performance and project champion.

Training employees is a cornerstone for adopting IS successfully in an organization. Companies increasingly use end-user training to help create a more productive and competitive workforce. End-user training programs are often designed to specifically address issues of usefulness and ease of use. Training influence user's belief towards the system, while training programs increases the user's certainty to use (Rouibah et al. 2009).

According to Muathe et.al (2013), IT personnel helps organizations react to changes as well as providing necessary connectivity and modularity that enable rapid organizational response

to changes. IT personnel contribute significantly to the extent of IT implementation. The lack of computer skills is regarded as the most common barriers to Information Systems adoption.

Ifinedo (2012) found that lack of computer literacy among small business enterprise owners and a lack of knowledge regarding the benefits of Information Systems use is an inhibitor to Information Systems adoption in small businesses. He found that inability to acquire skill and expertise in new technologies, and lack of training and education form significant barriers to the adoption of Information systems. He concluded that for small businesses to successfully accept technological innovations, their executives and employees must have a reasonable knowledge of the relevance of IS in business operations.

According to Apulu and Latham (2009), in developed countries, ICT has been used to change the way businesses are conducted in order to have a strategic advantage in their various operations. However, the investment returns of ICT in developing countries have fallen short of the potential. They attributed this problem to organizational factors, environmental factors and lack of technical skills by employees among others.

2.4 Conceptual Framework

This study will be conceptualized in the sense that, challenges in procurement, human resource, Business process redesign and integration are the challenges facing deployment of ERP systems in SACCOs' in Kenya. As illustrated in figure 2.1, the independent variables will be borrowing, earnings and investment rate. The dependent variable will be challenges facing deployment of ERP systems, while the intervening variables will be the best practices in implementing ERP systems within the study area.

Independent Variables

Dependent Variable

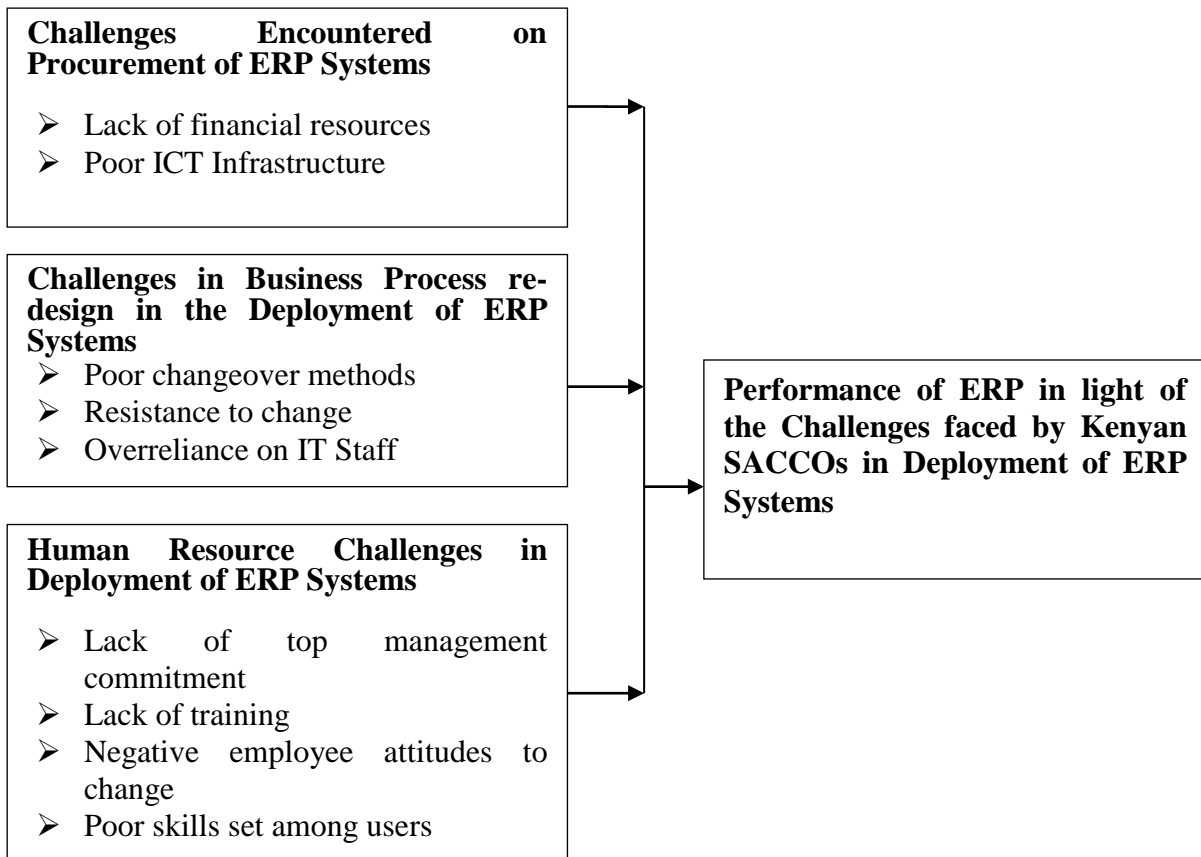


Figure 2.1: Conceptual Framework

In this case, manipulation of any independent variable is expected to affect the dependent variable either in a positive or negative way.

2.5 Knowledge Gap

Organizations worldwide have launched initiatives to implement ERP systems; there has been a growing increase in using ERP systems in emerging as well as developing economies too. However, despite the known benefits of implementing ERP systems there have been challenges faced in implementation leading to wastage of resources. It is therefore important for companies planning to purchase ERP systems to understand the factors that affect ERP implementation so as to optimize the ERP system benefits.

Past studies have shed light on the Success factors of information systems in other industries like the mobile industry. Little has been done in the SACCOs industry especially on information technology. Despite numerous articles and academic publications, there are notable gaps in this research study that has been undertaken to date in the context of deployment and implementation of ERP systems. This study therefore serves as a springboard that will facilitate other researchers to widen their scope and investigate on ERP systems and other information software.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides details on the methods that will be used for the study and adopts the following structure: research design, target population, population description, sampling, and data collection methods, research procedures and data analysis and methods.

3.2 Research Design

The study sought to find out the challenges faced by Kenyan SACCOs in the deployment of ERP systems. The study was a problem identification research which adopted descriptive method of research design. A questionnaire which is mostly structured undisguised with a few open questions was deployed for data collection. According to Churchill (1991) a descriptive research design is appropriate where the study seeks to describe the features of certain groups, estimate the proportion of people who have certain characteristics and make predictions.

3.3 Target Population

According to Ngechu (2004) a population is a distinct set of people, events, services, elements, and group of things or household that is being investigated. The target population was the 176 deposit taking SACCOs licensed by SASRA in 2016.

3.4 Samples and Sampling Procedure

A sample is a segment of the population selected to represent the population as a whole (Kombo, 2006). It is representative and allows the researcher to make accurate estimates of the thoughts and behavior of the population. Simple random sampling will be used in this

study. A sample size is a selection of elements, members or units from a population. An ideal sample is one that provides a perfect representation of a population (Blaikie, 2009). According to Mugenda and Mugenda (2003), 10% -30% of the accessible population is enough for descriptive studies.

A total sample of 60 SACCOs was selected using simple random sampling which is approximately 34% of all the licensed SACCO'S in Kenya as at the end of 2015. The respondents were 60 managers of the SACCO'S in Kenya selected using simple random sampling.

3.5 Data Collection

Data was collected using primary methods. The main data collection instruments employed in this study was questionnaires. The primary data was collected through the use of questionnaires which will be circulated to the sample size.

The researcher obtained an introductory letter from the KCA University to collect data from the sample. The questionnaire design included multiple-choice questions; fill in questions and questions that required ranking of answers. The questionnaire was divided into five sections, section A dealt with the Sacco profile and operations, section B dealt with the procurement ERP systems, section C dealt with the process of re-design in the ERP implementation, Section D dealt with the human resource challenges in deployment of ERP systems and Section E dealt with the integration of various ERP systems. The questionnaires were distributed to the respondents to fill and later picked. In some instances the researcher in person administered the questionnaires to the respondents. To guarantee reliability and validity of the questionnaire, a pilot testing was conducted for five SACCOs in Nairobi County which are not deposit taking. The five pilot SACCOs was not included in the final

data analysis. The researcher had experts in cooperative and management assist to check and provide guidance on the questionnaire.

3.6 Data Analysis Technique

Data analysis refers to examining what has been collected in a study and making deductions and inferences (Kombo, 2006). The data gathered from the respondents will be checked for completeness. Once checked for completeness, the data will be coded to facilitate the responses to be grouped into various categories.

Quantitative data was analysed through Descriptive analysis. Results will be presented in form of tables and graphs. Frequency tables, cumulative percentage tables, bar charts, pie charts were used to present the findings.

Qualitative data was analysed qualitatively through content analysis. The collected data was transcribed before coding the data into themes or categories. This involved breaking down the data into manageable pieces, sorting and sifting while searching for types, classes, sequences, processes, patterns or themes

Data analysis was done with the help of Statistical Package for Social Science software programme (SPSS) version 21 which is the most current version in the market and Microsoft excel to generate quantitative reports. Excel worksheet was also be used to analyze the data.

3.6.1 Model Specification

This model helped to establish the relationship between the independent variables and the dependent variable. The Co-efficient of determination, R^2 was used to estimate how well the independent variables explain the dependent variable in the model. Multiple

regression analysis was used to establish the relationship between independent variables and the dependent variable. Lusardi and Mitchell (2006) used a similar model to study the effects of financial literacy on individual savings; an area closely related this study on the challenges faced by Kenyan SACCOs in the deployment of ERP systems. The model specification will be as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where

α : is a constant term,

β_n : coefficients to be determination ε : the error term.

Y: the dependent variable (Performance of ERP in light of challenges faced by Kenyan SACCOs in the deployment of ERP systems)

X₁: challenges encountered in the procurement of ERP systems

X₂: challenges in business process re-design in the deployment of ERP systems

X₃: human resource challenges in deployment of ERP systems

3.6 Ethical considerations

The research used the information collected from respondents for research purpose only. During the course of this research, the quality and integrity of the research was maintained by ensuring to seek informed consent, confidentiality and maintain anonymity of the research respondents. Also participants participated in the study voluntarily, avoided any harm to the participants; and the research was independent and impartial.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the results of the data analysis on the study to investigate the challenges facing the deployment of ERP systems by SACCOs in Kenya. The study was carried out in 60 SACCOs which were selected using simple random sampling which was approximately 34% of all the licensed SACCO'S in Kenya as at the end of 2015. The findings are based on these responses as presented in this chapter. First, the sample characteristics are shown. This is followed by a presentation of the results based on the study objectives.

4.2 Response Rate

A total of 60 questionnaires were sent, filled and picked. 51 questionnaires were filled therefore representing a 85% response rate.

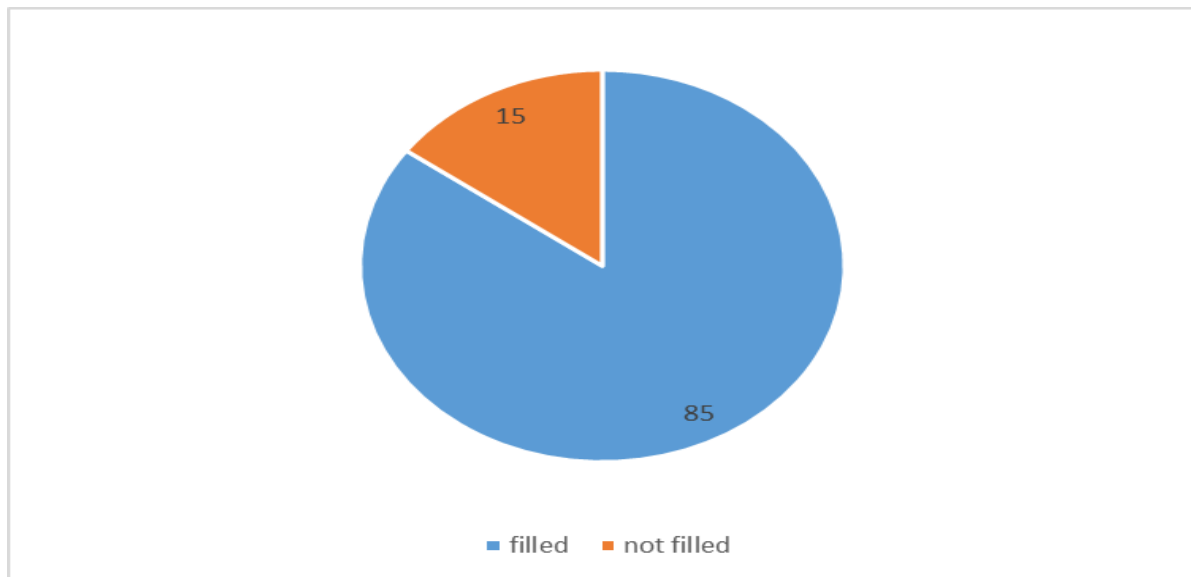


Figure 4.1: Response Rate

Source: Research Data (2016)

4.3 General information

4.3.1 Year of Incorporation

The study found that 76.5% of the SACCOs were incorporated in the year's between 1996-2010. The study also found that 19.6% of the SACCOs were incorporated in the years between 1981- 1995. The remaining 3.9% of SACCOs were incorporated between 1966-1980. This shows that majority of the SACCOs in the study had been operating in the Kenyan market for more than 10 years. The results are summarized and presented in Figure 4.2.

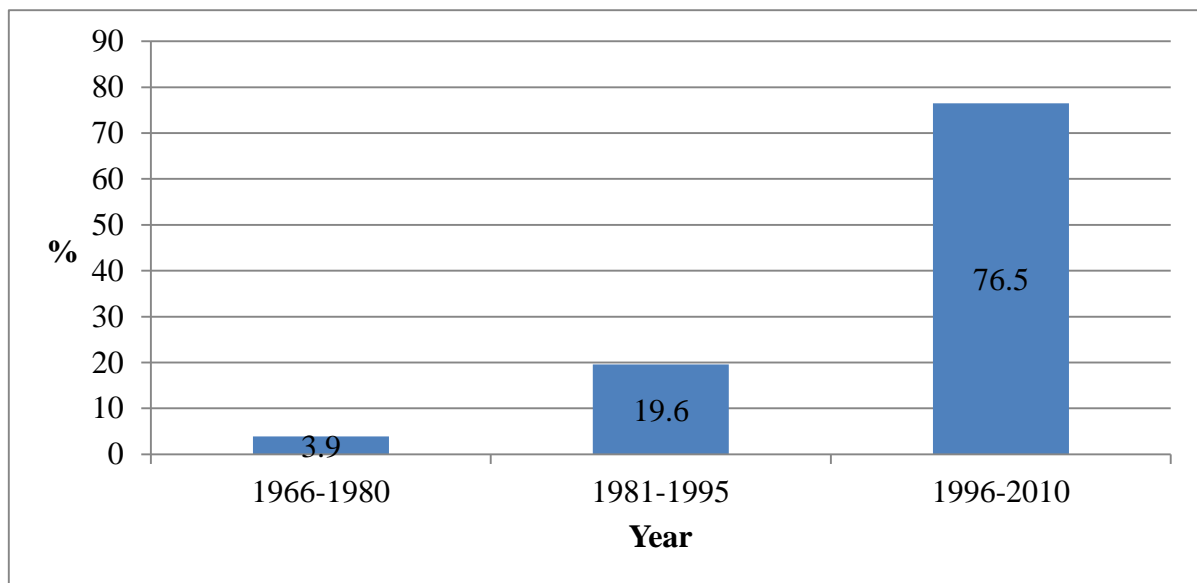


Figure 4.2: Year of Incorporation

Source: Research Data (2016)

As shown on the table most of the SACCOs were started before 2010, a clear indication that the SACCOs have been in operation for more than 5 years. This should provide candid views on the challenges faced in the deployment of ERP systems. These findings point to the fact that most of the SACCOs are established and informed on most issues concerning the area of study and thus the researcher was confident that these were the right institutions to involve in a study.

4.3.2 Number of Years Worked

The study further revealed that 29.4% of the respondents have worked in the industry for up to 1 year, 31.4% have worked in the industry for 1 to 5 years, 19.6% of the respondents have worked in the industry for 6 to 10 years, 9.8% of the respondents have worked in the organization for over 11 to 15 years and the remaining 9.8% have worked in the industry for over 15 years.

Table 4.1: Years Worked

	Frequency	Percentage
Up to 1 yr	15	29.4
1-5 yrs	16	31.4
6-10 yrs	10	19.6
11-15yrs	5	9.8
Over 15 yrs	5	9.8
Total	51	100

Source: Research data (2016)

This shows that most of the respondents had more than 1 year of experience in the industry. The length of time the respondents have been working in the industry has a great impact on the responses they provide as they have a better understanding of the industry. These results are summarized and presented in Table 4.1

4.3.3 Size of the Sacco

The study found that 45 % of the SACCOs were medium in size, 29% of the SACCOs were found to be large in size while the remaining 26% were small SACCOs. The results are summarized and presented in Figure 4.3 below.

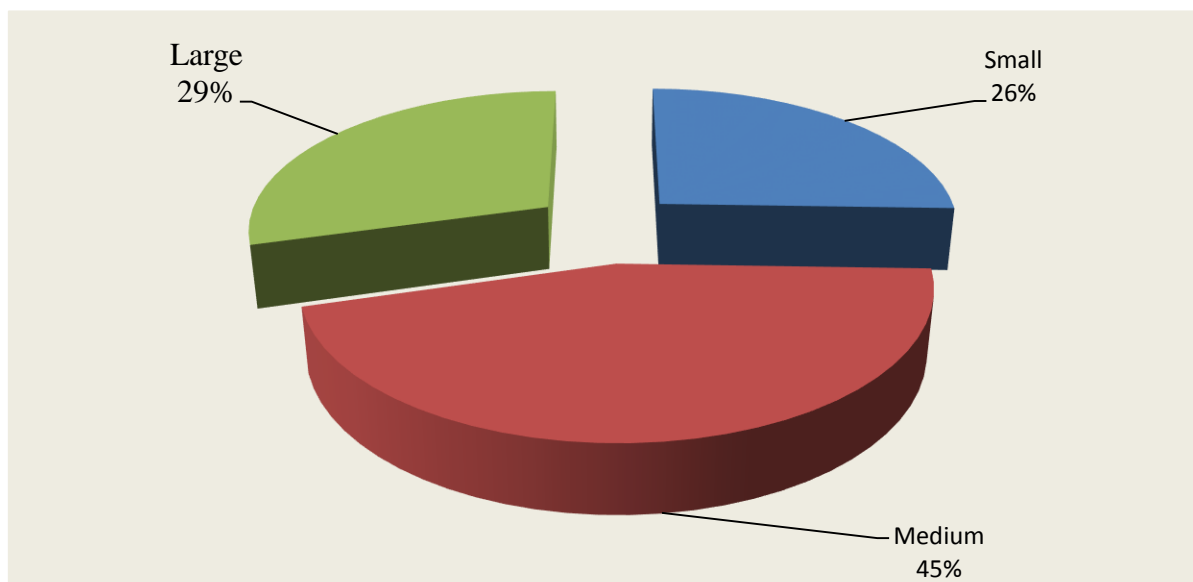


Figure 4.3: Frequency Distribution by Size of the SACCO

Source: Research Data (2016)

4.3.4 Number of Branches

The study found that 27.5% of the SACCOs have 2- 5branches across Kenya, 25.5.% of the SACCOs have one branch across the country, 15.7% of the SACCOs have 6-10 branches, 17.6% of the SACCOs have 11- 15 branches while the remaining 13.7% SACCOshave over 15 branches across the country. The results are summarized and presented in Table 4.2 below.

Table 4.2: Number of Branches

	Frequency	Percentage
1 branches	13	25.5
2-5 branches	14	27.5
6-10 branches	8	15.7
11-15 branches	9	17.6
Over 15 branches	7	13.7
Total	51	100

Source: Research Data (2016)

4.3.5 Deployment of ERP Systems

The study found that 15.6% of the SACCOs have deployed Oracle. SACCOs that had deployed Microsoft dynamic navision and SAP represented 13.7% of the population. Another group at 11.7% had deployed Finsacco while 9.8% of the SACCOs had deployed Easysacco. Other SACCOs deployed verge interactive, Baan and people soft at 5.8% while others deployed Abacus and Orbit at 3.9%. The remaining deployed an ERP system called ASMAS.

Table 4.3: ERP System Adopted

System	No. of Sacco	Frequency	Percentage
Microsoft Dynamic Navision	5,12,16,21,28,33,37	7	13.70%
ASMAS	29	1	1.90%
Verge Interactive	3,11,14	3	5.80%
Bankers Realm	24,41,47,19	4	7.80%
FinSacco	10,13,18,25,27,30,	6	11.70%
EasySacco	22,35,38,39,51	5	9.80%
Abacus	23,44	2	3.90%
Orbit	31,32	2	3.90%
SAP	7,9,20,45,49,2,35	7	13.70%
Oracle	8,40,42,43,46,50,4,17,	8	15.60%
Baan	15,26,29	3	5.80%
PeopleSoft	01,48,34	3	5.80%
Total		51	100

Source: Research Data (2016)

The table below gives a summary of the ERP deployment for SACCOs. It was found out that SACCOs had deployed different ERP systems.

4.3.6 Department Functions Incorporated in the ERP

The study found that 98% of the SACCOs have incorporated finance department function in the ERP, 96.07% have incorporated loans department function in the ERP, 94.1% of the SACCOs have incorporated ATMs and FOSA service department function in the ERP, 90.2% have incorporated BOSA services department function in the ERP, 80.3% of the Saccos have incorporated microfinance and procurement department function in the ERP, 70.5% of the SACCOs have incorporated customer care department function in the ERP, 58.8% have incorporated human resource department function in the ERP while the remaining 80.3% of the SACCOs have incorporated marketing department function in the ERP. The results are shown in the Table 4.4 below.

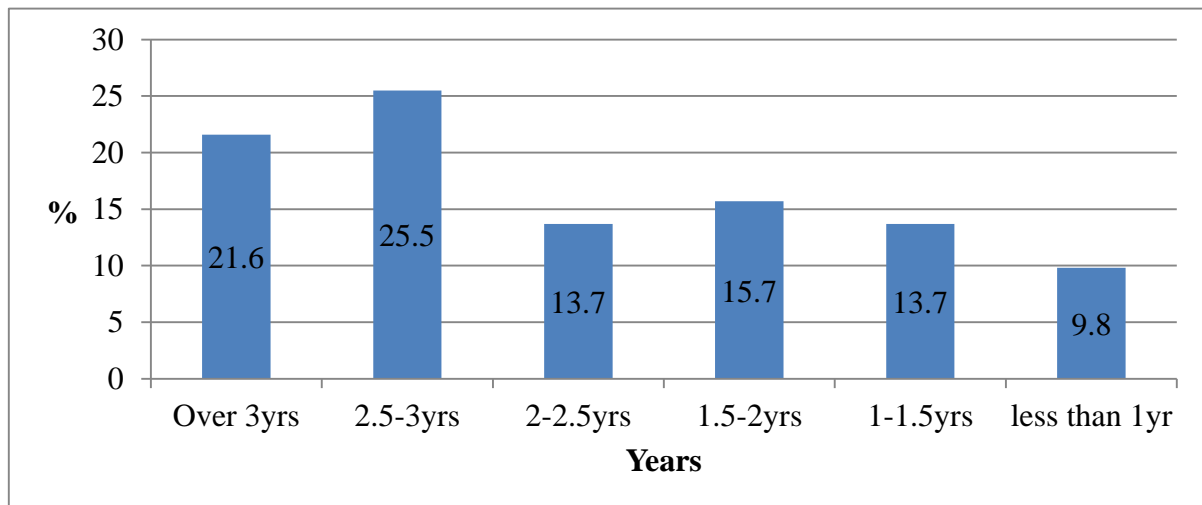
Table 4.4: Department Functions

Department	Frequency	Percentage
Finance	50	98%
Procurement	40	78.4%
Human Resource	30	58.8%
ATMs	48	94.1%
Fosa services	48	94.1%
Marketing	41	80.3%
Bosa Services	46	90.2%
Microfinance	41	80.3%
Loans	49	96.07%
Customer Care	36	70.5%

Source: Research data (2016)

4.3.7 Time taken to Procure and Implement the ERP System

The study further revealed that 13.7% of the SACCOs took 1 year to 1.5 years to procure and implement the ERP system, 9.8% of the SACCOs took less than 1 year to procure and implement the ERP system, 13.7% of the SACCOs took 2 year 2.5 years to procure and implement the ERP system, 25.5% of the SACCOs took 2.5 years to 3 years to procure and implement the ERP system, another 15.7% of the SACCOs took 1.5 years to 2 years to procure and implement the ERP system while the remaining 21.6% of the SACCOs took over 3 years to procure and implement the ERP system. The results are illustrated in Figure 4.4 below



Source: Research Data (2016)

Figure 4.4: Time Taken to Procure and Implement ERP

4.3.8 Cost of the ERP

The study further revealed that 7.8% of the SACCOs spent 1- 5 million KSH to procure the ERP system, 5.9% of the SACCOs spent 6- 10 million KSH to procure the ERP system, 7.8% of the SACCOs spent 11- 15 million KSH to procure the ERP system, 9.8% of the SACCOs spent 16- 20 million KSH to procure the ERP system, another 23.5% of the SACCOs spent 20- 25 million KSH to procure the ERP system while the remaining 45.1% of the SACCOs spent over 25 million KSH to procure the ERP system. The results are shown in Table 4.5.

Table 4.5: Cost of ERP Purchase

	Frequency	Percentage
Over 26 million	23	45.1
20-25million	12	23.5
16-20 million	5	9.8
11-15million	4	7.8
6-10 million	3	5.9
1-5million	4	7.8
Total	51	100

Source: Research data (2016)

4.3.9 Cost of Implementation

The study further revealed that 33.3% of the SACCOs spent 1- 5 million KSH to implement the ERP system, 29.4% of the SACCOs spent 6- 10 million KSH to implement the ERP system, 13.7% of the SACCOs spent 11- 15 million KSH to implement the ERP system, 9.8% of the SACCOs spent 16- 20 million KSH to implement the ERP system, another 9.8% of the SACCOs spent 21- 25 million KSH to implement the ERP system while the remaining 3.9% of the SACCOs spent over 26 million KSH to implement the ERP system. The results are shown in Table 4.6 below.

Table 4. 6: Cost of Implementing ERP

	Frequency	Percentage
1-5 million	17	33.3
6-10million	15	29.4
11-15million	7	13.7
16-20 million	5	9.8
20-25million	5	9.8
Over 26 million	2	3.9
Total	51	100

Source: Research data (2016)

4.3.10 Cost of ERP Training

The study further revealed that 49 % of the SACCOs spent 1- 5 million KSH on ERP training, 21.6% of the SACCOs spent 6- 10 million KSH on ERP training, 13.7% of the SACCOs spent 11- 15 million KSH on ERP training, 7.8% of the SACCOs spent 20- 25 million KSH on ERP training, 5.9% of the SACCOs spent 16- 20 million KSH on ERP training while the remaining 2% of the SACCOs spent over 26 million KSH on ERP training. The results are shown in Table 4.7 below.

Table 4.7: Cost of ERP Training

	Frequency	Percentage
1-5 million	25	49
6-10million	11	21.6
11-15million	7	13.7
16-20 million	3	5.9
20-25 million	4	7.8
Over 26million	1	2
Total	51	100

Source: Research data (2016)

4.4 Challenges in the Procurement of ERP Systems

4.4.1 Involvement of a Consultant during the Procurement Process

The study found that 78.5% of the respondents answered yes while the remaining 21.5% answered no. This shows that majority of the SACCOs involved a consultant to guide them in the procurement process. The results are summarized and presented in Figure 4.5.

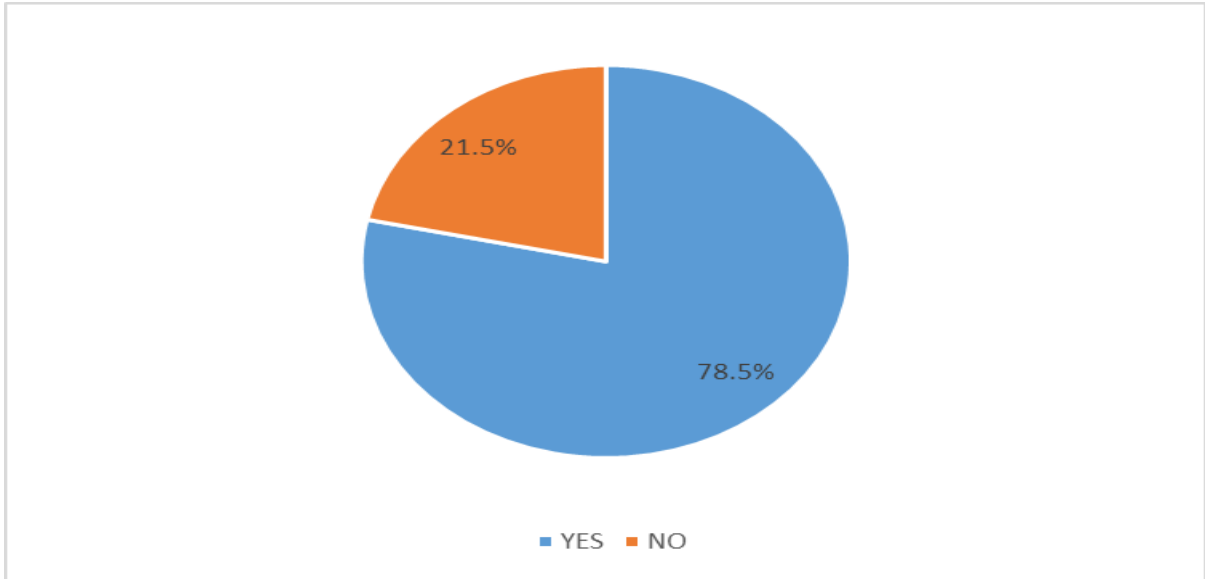


Figure 4.5: Involvement of a Consultant

Source: Research data (2016)

4.4.2 Board and Senior Management Involvement in Procurement Process

The study found that all of the SACCOs, the senior management and the board of directors were involved in the procurement process.

4.4.3 Procurement Committee Involvement in Procurement Process

The study found that 59% of the respondents answered yes while the remaining 41% answered no. This shows that majority of the SACCOs formed a committee for procurement of the ERP. The results are summarized and presented in Figure 4.6.

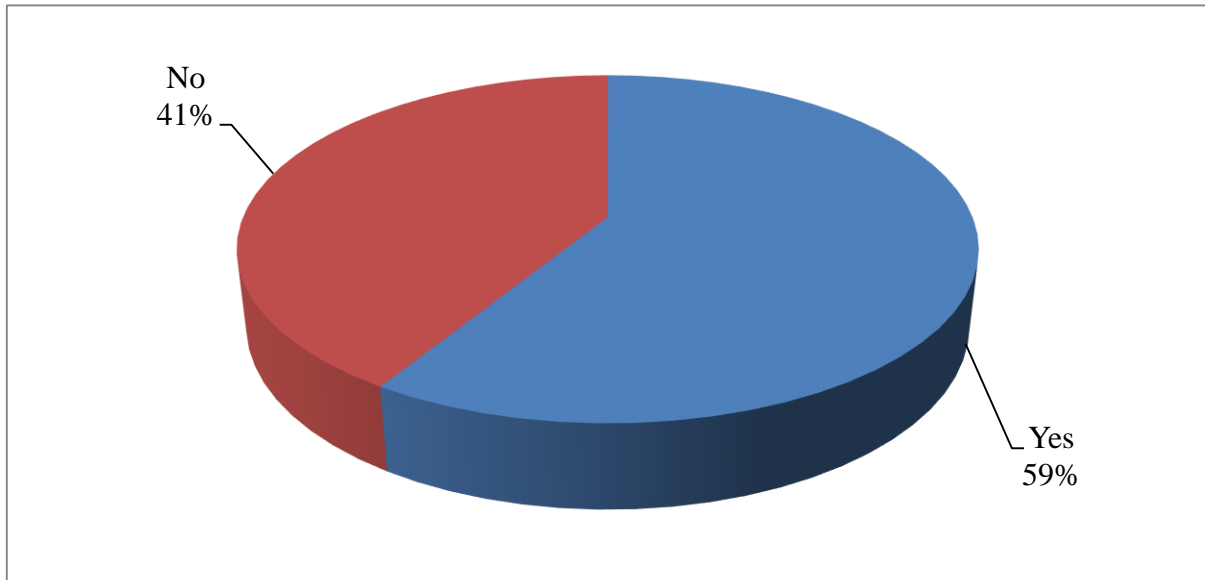


Figure 4. 6: Formation of a Procurement Committee

Source: Research data (2016)

4.4.4 Budget for the Procurement

The study further revealed that 31.4% of the SACCOs had a budget of 1- 5 million KSH for the procurement of the ERP, 21.6% of the SACCOs had a budget of 6- 10 million KSH for the procurement of the ERP, 15.7% if the SACCOs had a budget of 20- 25 million KSH for the procurement of the ERP, 13.7% of the SACCOs had a budget of 11- 15 million KSH for the procurement of the ERP, 9.8% had a budget of 16- 20 million KSH for the procurement of the ERP while the remaining 7.8% had a budget exceeding 26 million KSH for the procurement of the ERP. The results are shown in Table 4.8 below.

Table 4.8: Budget for Procurement of ERP

	Frequency	Percentage
1-5 million	16	31.4
6-10million	11	21.6
11-15million	7	13.7
16-20 million	5	9.8
20-25 million	8	15.7
Over 26million	4	7.8
Total	51	100

Source: Research data (2016)

4.4.5 Presence of a Comprehensive Request for Proposal before Tender Invitation

The study found that 57% of the respondents answered yes while the remaining 43% answered no. This shows that majority of the SACCOs prepared a comprehensive request for proposal before inviting vendors to tender. The results are summarized and presented in Figure 4.7.

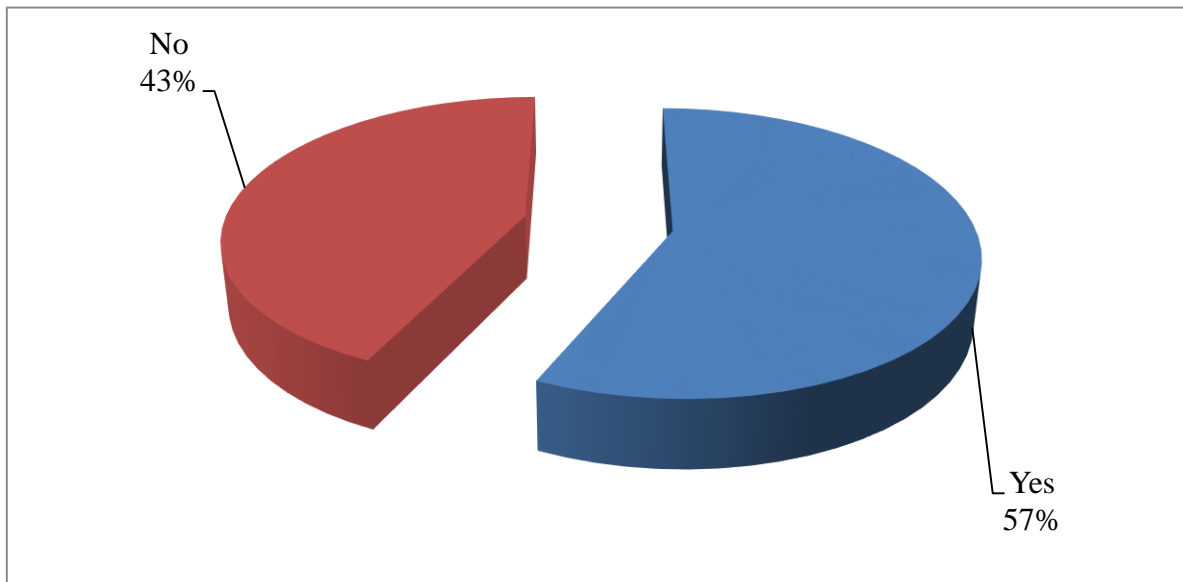


Figure 4.7: Presence of a Comprehensive Request for Proposal before Tender Invitation

Source: Research data (2016)

4.4.6 Factors Considered while Selecting the Computer Hardware

In order to investigate the factors considered while selecting the computer hardware, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5- Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4. 9: Factors considered in the selection of computer hardware

Agreement	N	Mean	Std.Dev	Variance
Brand/manufacturer	51	4.098	0.80635	0.65
Standardization of the system	51	4.098	0.80635	0.65
Speed	51	3.902	0.98499	0.97
Cost	51	3.9804	0.92715	0.86
User's manual/guide	51	4.451	0.54088	0.293
Reliability of the system	51	3.9216	0.93473	0.874
Technical support	51	4.1373	0.66392	0.441
Site visits	51	3.1373	1.18355	1.401

Source: Research data (2016)

From Table 4.9 the majority of the respondents felt that User's manual/guide is the most considered factor while selecting computer hardware with a mean of 4.451. This was followed by those who felt that technical support with mean of 4.1373, site visits 4.1373, brand/manufacturer with mean 4.098 and standardization of system with mean of 4.098. This was followed by cost with mean of 3.9804, then reliability of the system with the mean of 3.9216 and lastly speeds with mean of 3.902. The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with Site visits and users' manual/guide recording standard deviations of 1.1835 and 0.54088 respectively. Their corresponding variances were 1.401 and 0.293 respectively. Further the respondents had slightly varying responses.

4.4.7 Factors Considered while Selecting an ERP Software

In order to investigate the factors considered while selecting the ERP software, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5- Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with

the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4. 10: Factors Considered while Selecting ERP Software

Agreement	N	Mean	Std. Dev	Variance
Reliability	51	3.9412	0.85818	0.736
Service and technical support	51	3.8431	1.08393	1.175
Compatibility with software	51	3.8039	0.9802	0.961
Availability of updates	51	3.8824	0.90878	0.826
Compatibility with other programmes	51	3.7255	1.05978	1.123
Ease of operation	51	3.8627	0.8251	0.681
Data migration	51	3.7647	1.25838	1.584
Site visits	51	3.9804	1.02937	1.06

Source: Research data (2016)

From Table 4.10 the majority of the respondents felt that site visits are the most considered factor while selecting ERP software with a mean of 3.9804. This was followed by those who felt that reliability and track record of the software vendor is an important factor considered with a mean of 3.9412. This was followed by history/ availability of updates/revision with a mean of 3.8824.

This followed by ease of operation with a mean of 3.862. This was followed by service and technical support with a mean of 3.8431. This was followed by compatibility of software with current and future hardware with a mean of 3.8039. This was followed by data migration with a mean of 3.7647. This was followed by Compatibility with other program being used with a mean of 3.7255. The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with data migration recording standard deviations of 1.2583.

4.4.8 Challenges Faced while Procuring the ERP System

In order to investigate the challenges faced while procuring ERP software, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4.11: Challenges Faced in the Procurement Process

Agreement	N	Mean	Std. Dev	Variance
Inadequate procurement planning for the ERP by the Sacco	51	4.3725	0.79902	0.638
Poor understanding of ERP by the Sacco internal stakeholders	51	4.0784	1.05533	1.114
Compatibility with existing hardware	51	3.9804	1.02937	1.06
Finances and allocated budget	51	3.9412	0.85818	0.736
Inadequate information and details from participating vendors	51	3.8431	1.08393	1.175
Compliance with the Public Procurement and Disposal Act and its rules and regulations	51	3.8039	0.9802	0.961
Lack of standardization in ERP systems	51	3.8824	0.90878	0.826

Source: Research data (2016)

From Table 4.11, majority of the respondents agreed that inadequate procurement planning for the ERP by the Sacco is a challenge while procuring ERP software with a mean of 4.3725. This was followed by poor understanding of ERP by the Sacco internal stakeholders with a mean of 4.0784. This was followed by those who felt that compatibility with existing hardware is a challenge while procuring an ERP system with a mean of 3.9804. This was followed by finances and allocated budget with a mean of 3.9412. This was followed by lack of standardisation in ERP systems with a mean of 3.8824. This was followed by inadequate information and details from participating vendors with a mean of 3.8431. This was followed

by Compliance with the Public Procurement and Disposal Act and its rules and regulations with a mean of 3.8039. The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with compliance with the inadequate information and details from participating vendors and Poor understanding of ERP by the Sacco internal stakeholder recording standard deviations of 1.0839 and 1.0293 respectively. Their corresponding variances were 1.1749 and 1.0596 respectively. Further the respondents had slightly varying responses.

4.5 Challenges in Business Process Redesign

4.5.1 Level of Management Involved in BPR

The study found that 43.1% of the respondents agreed that BPR methodology focused on executive and tactical levels management, 31.4% of the respondents agreed that BPR methodology focused on the executive management level, tactical and operational levels while the remaining 25.5% of the respondents agreed that BPR methodology focused on executive level of management only. The results are summarized and presented in Table 4.12.

Table 4. 12: Management Level BPR Focuses On

Management level	Frequency	Percentage
Leadership/ executive level	13	25.5
Executive and Tactical level	22	43.1
Executive, tactical and operational levels	16	31.4
Total	51	100

Source: Research data (2016)

4.5.2 Involvement of a Consultant during the BPR Process

The study found that 63% of the respondents answered yes while the remaining 37% answered no. This shows that majority of the SACCOs involved a consultant to guide them in the BPR stage. The results are summarized and presented in Figure 4.8.

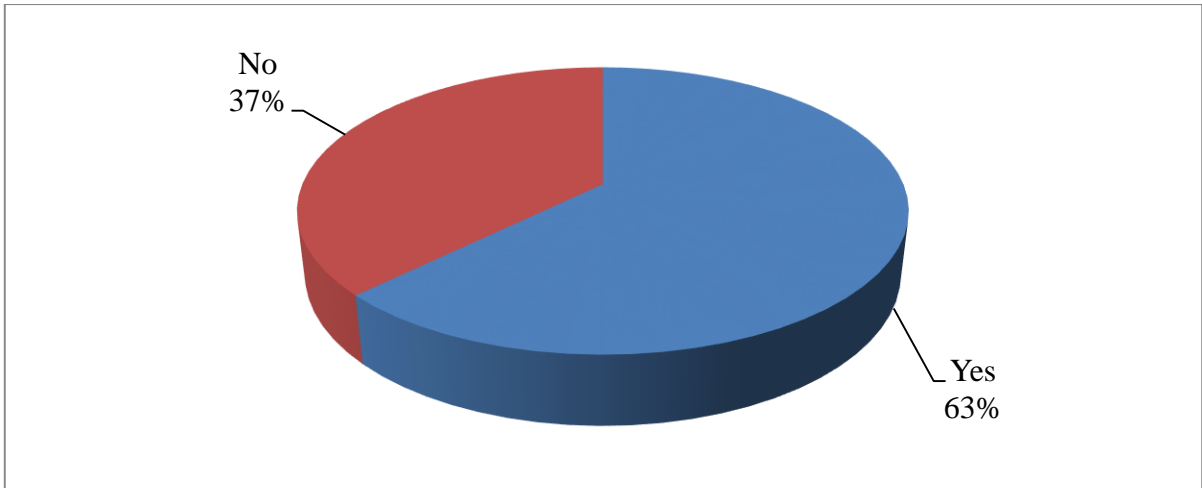


Figure 4. 8: Involvement of a Consultant in the BPR Stage

Source: Research data (2016)

4.5.3 Functional Specification Document by the Vendor

The study found that 78% of the respondents answered yes while the remaining 22% answered no. This shows that majority of the SACCOs received a functional specification document from the vendors. The results are summarized and presented in Figure 4.9.

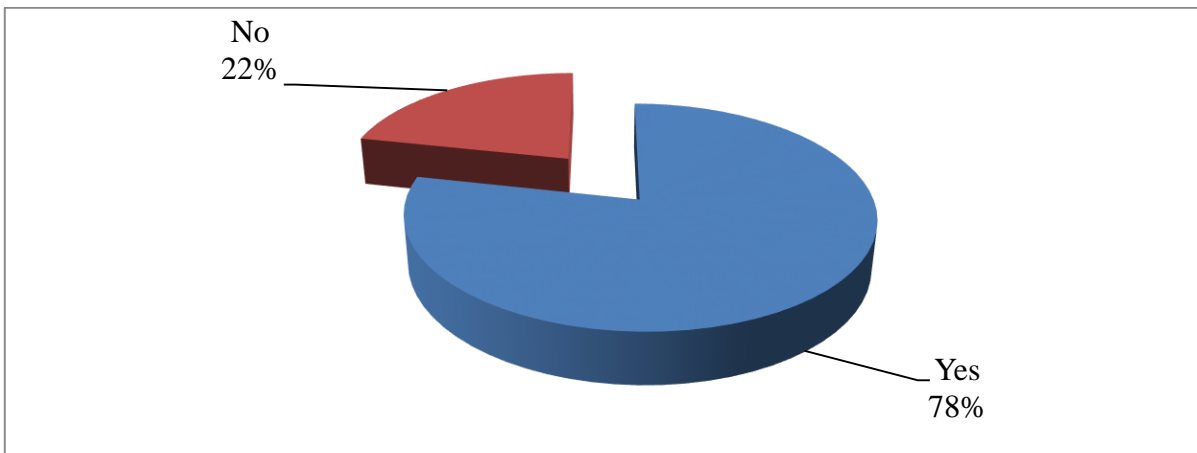


Figure 4.9: Presence of a Detailed Functional Specification Document Linking the Proposal and the Vendor Invitation

Source: Research data (2016)

4.5.4 Influence of BPR

In order to investigate the influence of Business process redesign, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4.13: Influence of BPR

BPR	N	Mean	Std. Dev	Variance
BPR is important in enhancing competitive advantage	51	4.3333	0.71181	0.507
BPR can improve the quality of business processes	51	4.3333	0.6532	0.427
BPR increases productivity	51	4.2353	0.7096	0.504
BPR can reduce costs	51	4.5098	0.70349	0.495

Source: Research data (2016)

From Table 4.13, majority of the respondents agreed BPR can reduce costs with a mean of 4.5098. This was followed by those that felt BPR is important in enhancing competitive advantage with a mean of 4.3333. This was followed by those who felt that BPR can improve the quality of business processes with a mean of 4.3333. Another group of respondents agreed that BPR increases productivity with a mean of 4.2353.

The Table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with BPR is important in enhancing competitive advantage recording standard deviation and a variance of 0.71181 and 0.50667 respectively. Further the respondents had slightly varying responses.

4.5.5 BPR Challenges

In order to investigate the Business process redesign challenges, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The

main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4.14: Frequency Distribution of BPR Challenges

BPR challenges	N	Mean	Std. Dev	Variance
Lack of organizational and management support and ownership for BPR was a challenge to deployment of information systems	51	4.2353	0.76389	0.584
Technical incompetence of the implementers causes failure in implementation of new Information Systems	51	4.2941	0.94433	0.892
Over reliance on IT can cause failure of BPR	51	4.3333	0.84063	0.707
Failure to define organizational objectives causes failure of BPR and deployment of ERP systems	51	4.3529	0.7162	0.513

Source: Research Data (2016)

From Table 4.14, majority of the respondents agreed that failure to define organizational objectives causes failure of BPR and deployment of ERP systems with a mean of 4.352, followed by over reliance on IT can cause failure of BPR with mean of 4.333, then lack of organizational and management support and ownership for BPR was a challenge to deployment of information systems with mean of 4.235 and lastly technical incompetence of the implementers causes failure in implementation of new Information Systems with mean of 4.2941.

The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with technical incompetence of the implementers' causes' failure in implementation of new Information Systems and Over reliance on IT can cause failure of BPR recording standard deviations of 0.94433 and 0.8406 respectively. Their corresponding variances were 0.8917 and 0.70667 respectively.

4.6 Human Resource Challenges

4.6.1 Influence of Human Resource Training

In order to investigate the influence of human resource training on ERP adoption, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-

Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4.15: Frequency Distribution of Effect of Human Resource on ERP Implementation

Human Resource	N	Mean	Std. Dev	Variance
Employees' computer training certification influences ERP system adoption	51	3.8235	1.03355	1.068
Employee's ability to work with computer applications influences ERP systems adoption	51	4.1569	1.02708	1.055
Employees' continuous training on computer information systems influences adoption of ERP systems	51	3.6078	1.00157	1.003
Top management understanding of the benefits of information systems influences ERP systems adoption	51	3.5098	1.08393	1.175
Failure to train the users is a challenge to deployment of ERP systems	51	4.1961	.80049	.641

Source: Research data (2016)

From Table 4.15, majority of the respondents felt that failure to train the users is a challenge to deployment of ERP systems with a mean of 4.1961. This was followed by employee's ability to work with computer applications influences ERP systems adoption with a mean of 4.1569. This was followed by those who agreed that employees' computer training certification influences ERP system adoption with a mean of 3.8235. This was followed by those who felt that top managements understanding of the benefits of information systems influences ERP systems adoption with a mean of 3.5098. This was followed by those who felt that employees' continuous training on computer information systems influences adoption of ERP systems with a mean of 3.6078. The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying

responses with 1.0839 recording a standard deviation and corresponding variance of 1.0839 and 1.174 respectively. Further the respondents had slightly varying responses.

4.6.2 Human Resource Challenges Faced during Deployment of ERP

In order to investigate the human resource challenges faced during deployment of ERP system, the study used a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-Strongly Agree. These enabled the tabulation and interpretation of the responses from the research instrument. The main statistics derived are mean, standard deviation and the variance. The mean illustrated the extent to which the respondents agreed or disagreed with the statements put forth. This is well elaborated in the table and narratives below which show the respondents and the statistics.

Table 4.16: Human Resource Challenges

Human resource challenges	N	Mean	Std. Dev	Variance
Employees lack of support in the deployment of ERP systems	51	4.1765	0.81746	0.668
Managers lack of support in the deployment of ERP systems	51	4.2941	0.78215	0.612
Users are not fully involved in the deployment of ERP systems	51	3.9608	0.91566	0.838
Employees negative attitudes towards changes	51	4.4314	0.75511	0.57
Poor skill sets among users	51	4.0588	0.98817	0.976
Lack of adequate ICT Staff	51	3.9608	1.11285	1.238
Lack of training of users	51	3.8627	1.03961	1.081
Poor communication	51	4.1373	1.02019	1.041
Poor change management planning and execution	51	4.1176	0.90878	0.826

Source: Research data (2016)

From Table 4.16, majority of the respondents agreed those employees' negative attitudes towards changes with a mean of 4.4313. This was followed by Managers lack of support the deployment of ERP systems is a challenge with a mean of 4.294. This was followed by employee's lack of support in the deployment of ERP systems with a mean of 4.176. Others felt that poor communication is a challenge to the deployment of an ERP system with a mean of 4.137. This was followed by Poor change management planning and execution with a

mean of 4.117. This was followed by Poor skill sets among users with a mean of 4.05. This was followed by Lack of adequate ICT staff and users are not fully involved in the deployment of ERP systems with a mean of 3.96. This was followed by Lack of training of users with a mean of 3.86.

The table further indicates the standard deviation (SD) and variance of the findings. It is clear that respondents gave varying responses with Lack of adequate ICT Staff and Lack of training of users recording standard deviations of 1.1128 and 1.0396 respectively. Their corresponding variances were 1.2384 and 1.0807 respectively.

4.7 Performance on Business Function Integration

4.7.1 Level of integration

The study found that the ATMs had been implemented up to 90.1%, FOSA services had been implemented up to 89.1%, finance had been implemented up to 84%, loans had been implemented up to 83.7%, Microfinance had been implemented up to 80.4%, BOSA services had been implemented up to 78.2%, customer care had been implemented up to 70.5%, procurement had been implemented up to 65.4%, human resource had been implemented up to 42.6% and lastly marketing had been implemented up to 41.05%. The results are shown in the Table 4.17 below.

Table 4.17: Level of integration

Characteristic	Categories	Frequencies	Percentages
Finance	41-60%	2	3.9
	61-80%	12	23.5
	81-100%	37	72.5
	Total	51	100
Marketing	21-40 %	8	15.7
	41-60%	8	15.7
	61-80%	13	25.5
	81-100%	22	43.1
	Total	51	100
Procurement	21-40 %	7	13.7
	41-60%	10	19.6
	61-80%	17	33.3
	81-100%	17	33.3
	Total	51	100
Customer care	21-40 %	4	7.8
	41-60%	11	21.6
	61-80%	10	19.6
	81-100%	26	51
	Total	51	100
Human Resource	21-40 %	2	3.9
	41-60%	7	13.7
	61-80%	22	43.1
	81-100%	20	39.2
	Total	51	100
Loans	41-60%	10	19.6
	61-80%	16	31.4
	81-100%	25	49
	Total	51	100
ATM	21-40 %	1	2
	41-60%	19	37.3
	61-80%	12	23.5
	81-100%	19	37.3
	Total	51	100
BOSA	21-40 %	2	3.9
	41-60%	2	3.9
	61-80%	19	37.3
	81-100%	28	54.9
	Total	51	100
FOSA	21-40 %	2	3.9
	41-60%	7	13.7
	61-80%	22	43.1

	81-100%	20	39.2
	Total	51	100
Microfinance	41-60%	10	19.6
	61-80%	16	31.4
	81-100%	25	49
	Total	51	100

Source: Research data (2016)

4.7.2 ERP connection to Mpesa

The study found that 62.75% of the respondents answered yes while the remaining 37.25% answered no. This shows that majority of the SACCOs have seamlessly connected Mpesa to their ERPs. The results are summarized and presented in Figure 4.10.

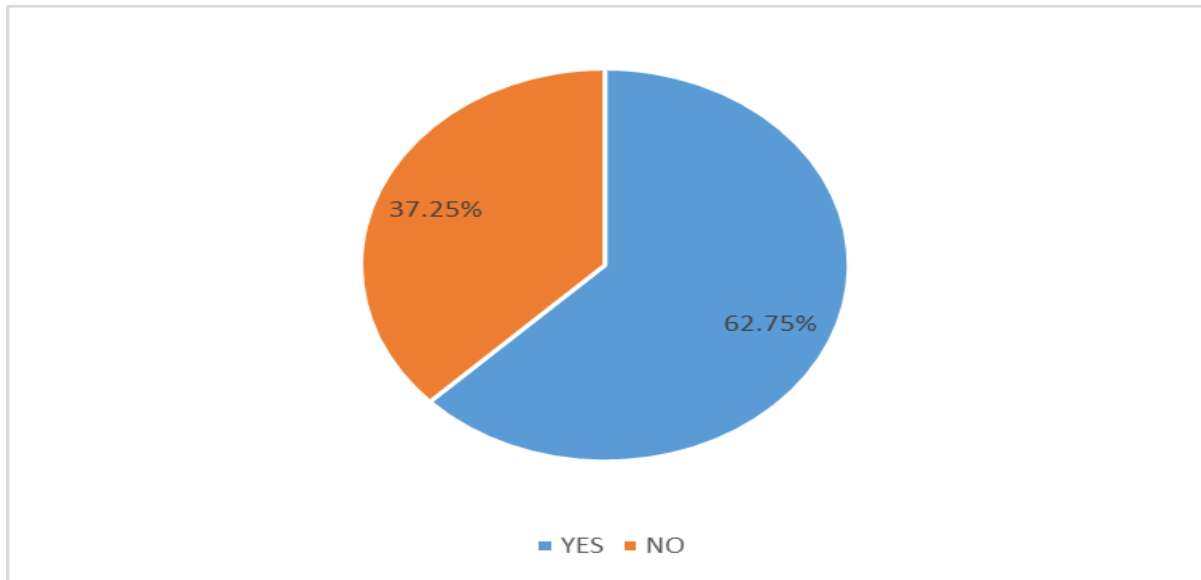


Figure 4. 10: ERP Connection to Mpesa

Source: Research data (2016)

4.7.3 ERP connection to Sacco Link or ATM Network

The study found that 76.5% of the respondents answered yes while the remaining 23.5% answered no. This shows that majority of the SACCOs have seamlessly connected their ERPs to Sacco link or ATM network. The results are summarized and presented in Figure 4.11.

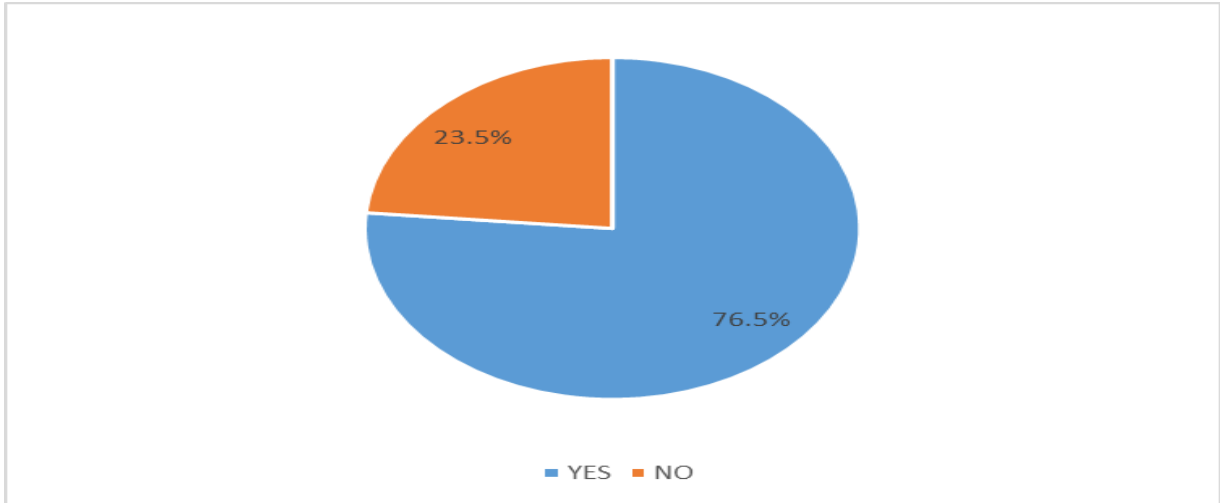


Figure 4. 11: ERP Connection Sacco Link or ATM Network

Source: Research data (2016)

4.7.4 Branch Connection to Facilitate Branchless Transactions

The study found that 58.8% of the respondents answered yes while the remaining 41.2% answered no. This shows that majority of the SACCOs have seamlessly connected their branches to facilitate branchless transactions. The results are summarized and presented in Figure 4.12.

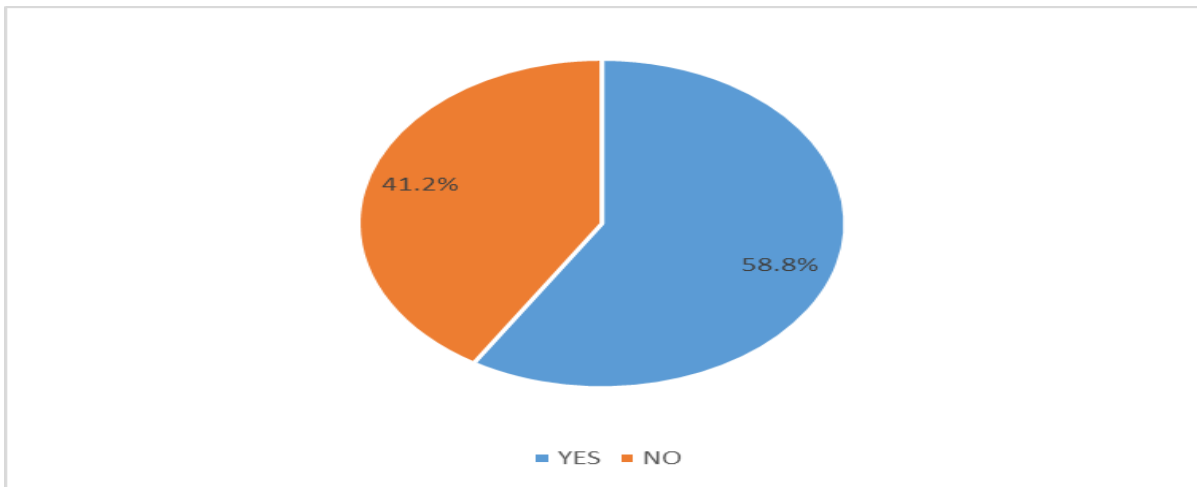


Figure 4. 12: Connection between Branches

Source: Research data (2016)

4.8 Inferential Statistics

The inferential statistics involved the use of multiple linear regression analysis. The model helped to establish the relationship between the independent variables and the dependent variable. The Co-efficient of determination, R^2 was used to estimate how well the independent variables explain the dependent variable in the model. Multiple regression analysis was used to establish the relationship between independent variables and the dependent variable

4.8.1 Regression Analysis

The study conducted a multiple regression on the challenges faced by Kenyan SACCOs in the deployment of ERP systems. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables.

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.955 ^a	0.912	0.905	1.26817

Source: Research data (2016)

The four independent variables that were studied, explain 91.2% of the challenges faced in the deployment of ERP systems in SACCOs as represented by the adjusted R^2 . This therefore means the four variables contribute to 91.2%, while other factors not studied in this research contribute 8.8% of the challenges faced in the deployment of ERP systems in SACCOs. Therefore, further research should be conducted to investigate the other (34.2%) challenges faced in the deployment of ERP systems in SACCOs.

4.8.2 Significance Level

Analysis of the variance (ANOVA) was used to make simultaneous comparisons between means; thus, testing whether a significant relation exists between dependent and independent variables. ANOVA indicates a significant F statistics implying that the model was fit for the estimation.

The results presented in table 4.15 gives the ANOVA results which shows the reliability of the model developed in explaining the relationship between the study variables. The significance of the model was tested at 5% level with a 2-tailed test.

Table 4.19: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	770.02	4	192.505	119.698	.000
Residual	73.98	46	1.608		
Total	844	50			

Source: Research data (2016)

From the table, the F statistic is 119.698 with a distribution $F(4,46)$, and the probability of observing a value greater than or equal to 119.698 as given by the significance value of 0.000 which is less than the critical value at 5% level in a 2-tailed test. 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 challenges encountered in the deployment of ERP systems in SACCOs in Kenya.

4.8.3 Regression Coefficients

In order to answer the proposed model for the challenges faced by Kenyan SACCOs in the deployment of ERP systems and the independent variables, the regression coefficients were calculated and presented in Table 4.20 below. These with their significance values (also given in the table) measure the influence of each independent variable to challenges faced by Kenyan SACCOs in the deployment of ERP systems (dependent variable).

Table 4.20: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.492	2.348		0.209	0.835
Challenges in Procurement of ERP Business Process Redesign	0.035	0.069	0.027	0.509	0.613
Challenges HRM challenges	-0.1	0.112	-0.044	-0.895	0.375
	0.254	0.085	0.184	2.988	0.004

Source: Research data (2016)

These coefficients therefore are used to answer the following regression model which relates the predictor variables (independent variables) and the dependent variables;

$$Y = 0.035 + 0.492 + 0.254$$

Where

Y: the dependent variable (Performance of ERP in light of challenges faced by Kenyan SACCOs in the deployment of ERP systems)

X1: Procurement challenges deployment of ERP systems

X2: BPR challenges deployment of ERP systems

X3: Human resource challenges deployment of ERP systems

Table 4.20 above portrays that holding all the explanatory variables constant, SACCOs will realize an average of 0.492 units in Challenges. HR challenges have a positive coefficient of 0.254 implying that they positively affect deployment of ERP system.

4.9 Qualitative Analysis

4.9.1 ERP Procurement

Some of the respondents saw it important for the SACCOs to look for ways of buying ERP products that are affordable. ERP products tend to be expensive. The SACCOs should come up with committees to oversee the procurement of ERP products. The SACCOs should also

involve consultants to advise them on the best product to procure. They could negotiate with the developers of the software for price reduction.

According to some respondents, they agreed enough planning before procurement of the system will help in easy system deployment.

4.9.2 BPR

Business process reengineering, revamping old ways of doing business, legacy system conversion, security challenge and restructuring the organizations operation were strongly agreed as the challenges that the SACCO had to go through during and after system implementation.

Some of the respondents recommended that SACCOs should involve all the parties including stakeholders, managers and the users. Also there has to be support for the BPR adoption from the top management and the entire workforce since they are supposed to run in an entire enterprise, there is need for support from every party.

4.9.3 Human Resource

For effective deployment and use of the systems, there is need for close cooperation between the users of the systems, management and the stakeholders.

Some of the respondents recommended that SACCOs should lead by example and start an online course in savings and cooperatives. This would enhance the skills of its prospective and current members. These days it is possible to have effective online mentorship programs and SACCOs should explore starting online mentorship for its staff and the board.

Also there has to be support for the ERP adoption from the top management and the entire workforce since these systems are supposed to run in an entire enterprise, there is need for proper ICT infrastructure without which ERP systems may not be adopted.

4.9.4 ERP Integration

For easy integration of different types of data the SACCOs should keep updated data, information and reports within the organisation as a whole in all the business functions.

Some of the respondents recommended that SACCOs must ensure that they carry out all the activities and ensure they strategize on the ERP implementation strategy based on the organization's needs; ensure that their structures are optimal to ERP implementation and there is available training to choose the right implementation strategy and that there is adequate competence.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of research findings, discussion of key findings, conclusions made from the study and the recommendations for policy and practice. The chapter also presents suggestions for further research.

5.2 Summary of Findings

The main objective of this study was to investigate the challenges facing the deployment of ERP systems by SACCOs in Kenya. Out of the 60 questionnaires sent, 51 questionnaires were filled therefore representing 85% response rate. Most of the SACCOs 76.5% were incorporated in the year's between 1996-2010. Majority of the respondents 31.4% have worked in the industry for up to 5 years. The study found that 45% of the SACCOs were medium in size, 29% of the SACCOs were found to be large in size while the remaining 26% were small SACCOs. Most of the SACCOs 45% were medium in size. A great number of SACCOs 27.5% had 2-5 branches. Most of the SACCOs had deployed Oracle 15%, followed by SAP and Microsoft Dynamic Navision at 13.7% respectively, then FinSacco at 11.7%. Majority of the SACCOs, 98% had incorporated ERP in Finance department followed 96.07% in loans, FOSA and ATMs at 94.1% respectively and lastly Bosa Services at 90.2%. For most SACCOs, 25.5% it took 2.5-3 years to procure and implement ERP. 45.1% of the SACCOs spent over 26 million to procure ERP. During implementation of ERP, most of SACCOs 33.3% spent 1-5 million shillings. Most SACCOs 21.6% spent about 6-10 million in ERP training.

5.2.1 Challenges in the Procurement of ERP Systems

Majority of the SACCOs 78.5% involved a consultant to guide them in the procurement process. All of the SACCOs, the senior management and the board of directors were involved in the procurement process. Most of the SACCOs 59% formed a committee for procurement of the ERP. Most of the SACCOs 31.4% had a budget of 1- 5 million KSH for the procurement of the ERP. Majority of the SACCOs 57% prepared a comprehensive

request for proposal before inviting vendors to tender. Majority of the respondents felt that User's manual/guide is the most considered factor while selecting computer hardware with a mean of 4.451. This was followed by those who felt that technical support with mean of 4.1373, site visits 4.1373, brand/manufacture with mean 4.098 and standardization of system with mean of 4.098. Most of the respondents felt that site visits are the most considered factor while selecting ERP software with a mean of 3.9804. This was followed by those who felt that reliability and track record of the software vendor is an important factor considered with a mean of 3.9412. This was followed by history/ availability of updates/revision with a mean of 3.8824. Majority of the respondents agreed that inadequate procurement planning for the ERP by the Sacco is a challenge while procuring ERP software with a mean of 4.3725. This was followed by poor understanding of ERP by the Sacco internal stakeholders with a mean of 4.0784. This was followed by those who felt that compatibility with existing hardware is a challenge while procuring an ERP system with a mean of 3.9804. This was followed by finances and allocated budget with a mean of 3.9412. This was followed by lack of standardisation in ERP systems with a mean of 3.8824. This was followed by inadequate information and details from participating vendors with a mean of 3.8431.

5.2.2 Challenges in Business Process Redesign

The study found that in 43.1% of SACCOS, BPR methodology focused on executive and tactical levels management while for 31.4%, BPR methodology focused on the executive management level, tactical and operational levels while in the remaining 25.5%, BPR methodology focused on executive level of management only. Majority of the SACCOS 63% involved a consultant to guide them in the BPR stage. Majority of the SACCOS 78% received a functional specification document from the vendors. Most of the respondents agreed BPR can reduce costs with a mean of 4.5098, BPR is important in enhancing competitive advantage with a mean of 4.3333; BPR can improve the quality of business processes with a mean of 4.3333 and BPR increases productivity with a mean of 4.2353. Majority of the respondents agreed that failure to define organizational objectives causes failure of BPR and deployment of ERP systems with a mean of 4.352, followed by over reliance on IT can cause failure of BPR with mean of 4.333, then lack of organizational and management support and ownership for BPR was a challenge to deployment of information

systems with mean of 4.235 and lastly technical incompetence of the implementers causes failure in implementation of new Information Systems with mean of 4.2941.

5.2.3 Human Resource Challenges

Majority of the respondents felt that failure to train the users is a challenge to deployment of ERP systems with a mean of 4.1961. This was followed by employee's ability to work with computer applications influences ERP systems adoption with a mean of 4.1569. This was followed by those who agreed that employees' computer training certification influences ERP system adoption with a mean of 3.8235. This was followed by those who felt that top managements understanding of the benefits of information systems influences ERP systems adoption with a mean of 3.5098. This was followed by those who felt that employees' continuous training on computer information systems influences adoption of ERP systems with a mean of 3.6078. Majority of the respondents agreed that employees' negative attitudes towards changes with a mean of 4.4313 affect implementation of ERP followed by managers lack of support the deployment of ERP systems is a challenge with a mean of 4.294, employee's lack of support in the deployment of ERP systems with a mean of 4.176 and poor communication is a challenge to the deployment of an ERP system with a mean of 4.137. This was followed by Poor change management planning and execution with a mean of 4.117. This was followed by Poor skill sets among users with a mean of 4.05. This was followed by Lack of adequate ICT staff and users are not fully involved in the deployment of ERP systems with a mean of 3.96. This was followed by Lack of training of users with a mean of 3.86.

5.2.4 Business Function Integration

The study found that the ATMs had been implemented up to 90.1%, FOSA services had been implemented up to 89.1%, finance had been implemented up to 84%, loans had been

implemented up to 83.7%, Microfinance had been implemented up to 80.4%, BOSA services had been implemented up to 78.2%, customer care had been implemented up to 70.5%, procurement had been implemented up to 65.4%, human resource had been implemented up to 42.6% and lastly marketing had been implemented up to 41.05%. The results are shown in the table 4.13 below. Most of the SACCOs 62.75% have seamlessly connected Mpesa to their ERPs. Majority of the SACCOs 76.5% have seamlessly connected their ERPs to Sacco link or ATM network. A great number of SACCOs 58.8% have seamlessly connected their branches to facilitate branchless transactions.

5.3 Discussion

Enterprise Resource Planning systems are very important to SACCOs as it helps them achieve a lot of values although it depends on the level of deployment. It was found out that all the SACCOs had deployed the ERP systems and those that didn't have, were in the process of implementing them. The finding agrees with the Mutongwe and Rahab (2013) study that sought to establish that the ERP enables the full and efficient utilization of the resources for a SACCOs information needs hence giving them a lot of benefits.

The deployment of an ERP system has a lot of challenges. It was found out majority of the SACCOs encountered a lot of challenges during system procurement, implementation and system use.

5.4 Conclusion

In conclusion, the study found that ERP implementation is very key to SACCOs. The study also shows that SACCOs depend on the ERP system for many benefits including; increased efficiency, reduced operation costs increased departmental interaction, reliable information access to members and management, improved customer satisfaction, easy adaptability of the business process, improved collaborative culture, improved and timely delivery, competitive advantage and improved coordination are among the major values that most SACCOs have experienced. Technology is a tool that should be exploited to enhance service delivery in SACCOs. It not only creates competitive advantage but also enhances business growth and stability. Inco-operation of technology in SACCO operations has seen SACCOs improve efficiency, curb fraud and improve service efficiency to clients.

Deployment of technology in the business functions is however prone to many challenges. This study outlines four main challenges including challenges faced in the procurement of the system, BPR challenges in the deployment of the system, HR challenges in the deployment of the system and challenges faced in the integration of ERP into business functions.

5.5 Recommendations

The following recommendations can be made from the findings of this study: The organization's management must strive to improve employees' knowledge and skills to ensure successful ERP deployment. This can be done through user training before the system goes live and continuous training post implementation to fill the knowledge gaps. This will ensure that all employees are conversant with the ERP system and develop ownership of the system.

Top management should involve all the key stakeholders in the implementation process. The involvement can enhance adoptability of the system and overcome resistance to change and prevent conflicts from emerging during the implementation process. Top management should also provide leadership during the implementation process and provide support to the project team.

In addition, the entire organizations must be properly selected to ensure all the departments are represented. The organization should work as a team and be available to support employees during the implementation process.

5.6 Suggestions for Further Study

The researcher focused on SACCOs in Kenya only, future studies could focus on the other industries because the findings of this study cannot be generalized to SACCOs in Kenya. The scope could also be extended to include other East African countries. Additional studies could also focus on the level of adoption of ERP systems in other Industries like the manufacturing industry.

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APPENDICES

Appendix I: Letter of Introduction

Philip Kungu Kahoro
KCA University
P.O. Box 5000-00100 GPO Kenya
Cell Phone: +254-722 400901

Dear Sir/Madam,

RE: TO WHOM IT MAY CONCERN

I am Philip Kungu Kahoro, a student researcher from the KCA University carrying out a survey to identify the '*CHALLENGES FACED BY KENYANSACCOsIN THE DEPLOYMENT OF ERP SYSTEMS -* '.

This letter serves to assure you that the information and data collected will be treated with strict confidence and will not be used for any other purposes other than the academic work only. The findings will strictly be used for academic purpose only and can be shared with your firm on request after the study has been completed

Yours Faithfully,

Philip Kungu Kahoro

Appendix II: Questionnaire

This questionnaire is intended to collect data for academic purposes only. The information will be treated with strict confidence.

Serial Number: _____

Instructions to respondents

1. Do not write your name on the questionnaire.
2. Please respond to all the questions accurately and honestly.
3. You should respond by ticking (✓) the appropriate spaces and filling the spaces that have been provided.

Section A: General Information

1. When was the Sacco incorporated? _____
2. Number of years worked in deposit taking SACCO'S?
 1. Up to 1 year 1-5 years
 2. 6 – 10 years 11– 15 years
 3. Over 15 years
3. What size has the Sacco been classified by SASRA?
Small Medium Large
4. How many branches does the Sacco operate?
 1. 1 2-5
 2. 6 – 10 11– 15
 3. Over 15
5. Have your Sacco deployed an ERP system?
{ } Yes, we have already adopted ERP system
{ } No, but we have a plan to use ERP system in the future
If yes, what is the ERP deployed by your Sacco? _____
What database system does your Sacco deploy? _____
Who was your supplier for hardware that hosts the ERP system? _____
6. If yes to question 5, which department functions have been incorporated in the ERP?
Finance Marketing

Procurement	[]	Customer Care	[]
Human Resource	[]	Loans	[]
ATMs	[]	Bosa Services	[]
Fosa services	[]	Microfinance	[]
Other	[]	Other	[]

7. How long did the process of the procurement and implementation take?

Less than 1 year	[]	1 year to 1.5 years	[]
1.5 year to 2 years	[]	2 years to 2.5 years	[]
2.5 years to 3 ears	[]	Over 3 years	[]

8. What was the cost of the ERP purchase in millions?

1-5 million	[]	6-10 million	[]
11-15 million	[]	16-20 million	[]
20-25 million	[]	Over 26 million	[]

9. What was the cost of the ERP implementation in millions?

1-5 million	[]	6-10 million	[]
11-15 million	[]	16-20 million	[]
20-25 million	[]	Over 26 million	[]

10. What was the cost of the ERP training in millions?

1-5 million	[]	6-10 million	[]
11-15 million	[]	16-20 million	[]
20-25 million	[]	Over 26 million	[]

Section B. Challenges in the procurement of ERP systems

11. Did the Sacco involve or hire a consultant to guide the Sacco in the procurement of the ERP?

Yes [] No []

12. Were the senior management and board involved in the procurement?

Yes [] No []

13. Was a procurement committee for procurement formed?

Yes [] No []

14. What was the budget for the procurement of the ERP?

1-5 million []	6-10 million []
11-15 million []	16-20 million []
20-25 million []	Over 26 million []

15. Was a comprehensive Request for proposal done by your Sacco before inviting participating vendors to tender?

Yes [] No []

16. To what extend were the following factors taken into consideration while selecting the computer hardware on a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3- Not Sure, 4- Agree, 5-Strongly Agree. Please tick where appropriate.

Factors	1	2	3	4	5
Brand/manufacturer					
Standardization of the system					
Speed					
Cost					
Users' manual/guide					
Reliability of the system					
Technical support					
Site visits					

17. To what extend were the following factors taken into consideration while selecting the ERP software on a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5-Strongly Agree. Please tick where appropriate.

Factors	1	2	3	4	5
Reliability and track record of the software vendor					
Service and technical support					
Compatibility of software with current and future hardware					
History/ availability of updates/revision					
Preview/ sample sections					
Compatibility with other program being used					
Ease of operation and installation					
Data migration					
Site visits					

18. On a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure, 4- Agree, 5- Strongly Agree, What were the challenges while procuring the ERP system. Please tick where appropriate.

Challenges	1	2	3	4	5
Inadequate procurement planning for the ERP by the Sacco					
Poor understanding of ERP by the Sacco internal stakeholders					
Compatibility with existing hardware					
Finances and allocated budget					
Inadequate information and details from participating vendors					
Compliance with the Public Procurement and Disposal Act and its rules and regulations					
Lack of standardisation in ERP systems					

19. From your Sacco's ERP experience, what would have been done to improve on ERP procurement?

Section C. Challenges in Business process redesign

20. Which level of management does BPR methodology focus on? (Multiple answer)

Leadership/ executive level { } Tactical level { } Operational level { }

21. Did the Sacco involve or hire a consultant to guide the Sacco in the BRP stage?

Yes [] No []

22. Did the Vendor provide a detailed Functional Specification Document which linked the proposal request and the vendor ERP system?

Yes [] No []

23. To what extent do you agree with the following statements - Please tick where appropriate. Indicate the extent to which you agree or disagree with each of the statements as applicable to your organization. On a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure , 4- Agree , 5- Strongly Agree

Business process re-design	1	2	3	4	5
BPR is important in enhancing competitive advantage					
BPR can improve the quality of business processes					
BPR increases productivity					
BPR can reduce costs					

24. To what extent do you agree with the following statements - Please tick where appropriate. Indicate the extent to which you agree or disagree with each of the statements as applicable to your organization. On a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure , 4- Agree , 5- Strongly Agree

Business process re-design Challenges	1	2	3	4	5
Lack of organizational and management support and ownership for BPR was a challenge to deployment of information systems					

Technical incompetence of the implementers causes failure in implementation of new Information Systems					
Over reliance on IT can cause failure of BPR					
Failure to define organizational objectives causes failure of BPR and deployment of ERP systems					

25. From your Sacco's ERP experience, what would have been the done to improve on BPR before ERP implementation?

Section D. Human resource challenges

26. To what extent do you agree with the following statements - Please tick where appropriate. Indicate the extent to which you agree or disagree with each of the statements as applicable to your organization. On a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure , 4- Agree , 5- Strongly Agree

Human resource Challenges	1	2	3	4	5
Employees' computer training certification influences ERP system adoption					
Employee's ability to work with computer applications influences ERP systems adoption					
Employees' continuous training on computer information systems influences adoption of ERP systems.					
Top managements understanding of the benefits of information systems influences ERP systems adoption					
Failure to train the users is a challenge to deployment of ERP systems					

27. Do you agree with the following issues as the challenges to the deployment of ERP systems? - Please tick where appropriate. Indicate the extent to which you agree or disagree with each of the statements as applicable to your organization. On a scale of 1-5, where 1- Strongly Disagree, 2- Disagree, 3-Not Sure , 4- Agree , 5- Strongly Agree

Human resource challenges	1	2	3	4	5
Employees lack of support the deployment of ERP systems					
Managers lack of support the deployment of ERP systems					
Users are not fully involved in the deployment of ERP systems					
Employees negative attitudes towards changes					
Poor skill sets among users					
Lack of adequate ICT Staff					
Lack of training of users					
Poor communication					
Poor change management planning and execution					

28. From your Sacco's ERP experience, what would have been done to improve on the human resource deployment in an ERP implementation?

Section E. ERP performance on Business function integration

29. For each of the business function, kindly state the level performance of integration to the ERP on a scale of one to five, where 1- 1-20%, 2- 21-40%, 3-41-60%, 4- 61-80%, 5-81-100%

- | | | | |
|----------------|-----|---------------|-----|
| Finance | [] | Marketing | [] |
| Procurement | [] | Customer Care | [] |
| Human Resource | [] | Loans | [] |
| ATMs | [] | Bosa Services | [] |
| Fosa services | [] | Microfinance | [] |
| Other | [] | Other | [] |

30. Is your ERP seamlessly connected to Mpesa?

Yes []

No []

31. Is your ERP seamlessly connected to Sacco link or any ATM network?

Yes []

No []

32. Are your branches connected seamless to the ERP to facilitate branchless transactions?

Yes []

No []

If not, what are the challenges?

33. From your Sacco's ERP experience, what would have been done to improve on the ERP integration?

Thank you for your co-operation

THE END

Appendix III: Deposit Taking SACCOs in Kenya

No.	NAME OF SACCO	MEMBERSHIP	TOTAL ASSETS	TOTAL DEPOSITS	TOTAL LOANS
1	MWALIMU NATIONAL	60,961	28,600,850,746	19,903,134,406	22,114,592,339
2	HARAMBEE	80,851	19,919,702,761	12,811,082,129	15,988,483,092
3	STIMA	39,898	16,354,491,000	12,624,038,000	13,770,905,000
4	KENYA POLICE	46,910	15,691,033,000	10,185,874,000	12,653,819,000
5	AFYA	37,915	12,682,654,632	10,301,575,879	10,051,159,677
6	UNITED NATIONS	4,731	8,828,345,512	7,158,079,068	7,133,468,334
7	UKULIMA	36,159	8,294,183,624	6,004,712,254	6,211,101,944
8	UNAITAS	164,506	6,881,252,979	4,260,949,305	5,049,824,753
9	METROPOLITAN NATIONAL	60,891	6,706,442,027	3,731,412,756	5,696,280,176
10	IMARISHA	42,251	6,424,910,620	3,887,803,676	5,447,465,115
11	KENYA BANKERS	18,688	5,530,677,678	4,391,029,849	3,658,556,106
12	GUSII MWALIMU	24,460	5,514,432,037	3,045,450,050	4,714,023,813
13	KAKAMEGA TEACHERS	16,410	5,375,979,677	3,049,912,091	4,166,706,481
14	BANDARI	14,047	5,201,778,161	3,323,658,766	4,588,283,932
15	MAGEREZA	19,733	4,429,668,100	2,829,079,390	2,548,193,273
16	HAZINA	15,396	4,317,912,171	3,526,141,250	3,571,664,168
17	NYERI TEACHERS	9,549	4,159,239,485	2,400,736,473	2,922,314,031
18	BORESHA SACCO	51,843	3,836,776,532	2,197,417,520	2,823,134,579
19	IMARIKA	47,946	3,674,950,793	2,516,258,266	2,875,509,835
20	SHERIA	9,451	3,412,520,805	2,511,750,503	2,641,651,562
21	MENTOR	9,167	3,283,953,220	2,476,141,469	2,539,002,896
22	TOWER	21,925	3,159,714,687	2,380,810,683	2,560,574,712
23	KWETU SACCO	10,032	2,981,231,577	1,477,477,017	830,963,558
24	BINGWA	109,635	2,828,557,593	1,665,513,998	2,185,725,108
25	COSMOPOLITAN	10,565	2,752,896,588	2,355,567,696	2,362,068,515
26	SOLUTION SACCO	10,478	2,575,307,690	1,642,898,859	2,010,874,440
27	WAUMINI	18,399	2,564,239,534	1,856,455,371	2,065,258,749
28	NACICO	14,435	2,474,217,186	1,466,013,416	1,210,381,328
29	KITUI TEACHERS	13,548	2,468,569,238	1,806,004,407	2,083,575,828
30	WINAS	10,005	2,324,387,263	1,640,479,981	2,052,108,087
31	K-UNITY	129,903	2,311,727,406	1,724,506,451	1,375,387,217
32	MOMBASA PORT	4,336	2,292,676,279	1,233,214,063	2,080,588,093
33	OLLIN	6,003	2,279,088,108	1,666,847,497	2,010,271,309
34	SAFARICOM	7,214	2,207,420,777	1,891,804,251	1,996,567,897
35	NDEGE CHAI	30,383	2,166,771,382	1,342,290,630	1,768,257,246
36	JAMII	15,626	2,156,623,933	1,532,118,333	1,819,286,536
37	CAPITAL	39,371	2,039,906,541	1,381,174,187	1,498,467,917
38	CHAI	9,851	1,981,027,622	1,416,518,995	1,805,583,154

39	MURATA	93,348	1,945,138,029	1,228,158,909	1,225,746,794
40	TRANS NATION	13,707	1,935,084,309	1,440,639,141	1,533,734,070
41	CHUNA	4,208	1,925,519,198	1,296,255,998	1,870,979,355
42	TAIFA	106,606	1,847,765,920	1,500,078,028	824,410,587
43	NAKU	14,883	1,777,251,510	1,386,048,982	1,333,646,788
44	EGERTON UNIVERSITY	4,777	1,767,978,944	1,171,925,103	1,313,827,511
45	MAISHA BORA	4,322	1,729,964,896	1,432,129,875	1,559,868,054
46	YETU	23,815	1,699,301,395	1,097,902,733	1,169,889,815
47	ASILI COOPERATIVE	9,333	1,691,501,539	1,237,212,837	1,103,023,357
48	FORTUNE	96,234	1,639,046,137	841,089,187	1,458,670,077
49	KENPIPE	2,279	1,633,256,461	1,302,138,657	1,363,015,909
50	SHIRIKA	4,722	1,564,856,337	1,341,720,287	1,236,678,713
51	KENYA HIGHLANDS	52,981	1,555,481,960	1,042,106,883	820,912,642
52	UNISON	4,071	1,539,892,960	994,378,330	1,280,031,130
53	MOI UNIVERSITY	3,150	1,455,122,339	824,524,396	593,962,338
54	NGARISHA	10,966	1,375,329,336	823,024,392	847,004,044
55	ARDHI	7,008	1,343,127,971	1,125,068,467	1,153,425,290
56	WANANDEGE	5,801	1,340,085,161	1,091,873,993	702,306,559
57	KENVERSITY	4,035	1,290,960,811	1,054,056,814	1,099,546,271
58	UFUNDI	5,237	1,285,717,988	333,183,576	251,091,559
59	WARENG TEACHERS	5,327	1,229,164,006	853,934,261	945,475,478
60	TAI	30,393	1,210,723,206	783,005,540	935,953,247
61	WANANCHI	57,776	1,172,329,851	608,621,179	833,756,353
62	TEMBO	2,065	1,101,352,608	825,306,143	874,904,519
63	NATION STAFF	2,710	1,087,732,500	887,644,572	1,007,215,206
64	WANAANGA	3,614	1,079,081,877	929,606,548	813,373,386
65	WAKENYA PAMOJA	158,548	1,073,857,201	346,407,540	523,621,837
66	NASSEFU	3,039	1,058,052,994	705,159,262	832,286,504
67	TELEPOST	2,985	1,004,939,503	631,206,563	740,241,504
68	MWITO	5,839	1,001,852,980	862,671,558	917,512,427
69	KITE	5,916	988,941,146	604,802,252	574,333,400
70	QWETU	4,843	968,370,832	668,663,021	745,080,660
71	UKRISTO UFANISI	NA 21,912	931,234,975	801,615,187	867,108,810
72	NAWIRI	98,258	910,638,014	636,936,908	294,721,543
73	ELIMU	11,801	909,767,720	625,345,500	583,036,628
74	TRANS-ELITE COUNTY	3,261	907,459,536	578,289,769	485,153,516
75	SUKARI	33,664	895,268,827	606,870,612	583,917,658
76	KENYA CANNERS	4,998	865,837,848	624,982,002	622,913,141
77	SIMBA CHAI	10,726	839,475,193	597,509,748	737,002,713
78	SOUTHERN STAR	50,721	787,918,649	451,789,169	438,835,050

79	SMARTLIFE	3,163	786,753,168	536,277,795	671,325,109
80	TRANSNATIONAL	4,263	784,818,228	483,678,133	585,022,010
81	JITEGEMEE	2,626	778,476,540	285,912,069	383,243,044
82	DIMKES	12,259	691,003,143	617,512,856	623,646,198
83	GITHUNGURI DAIRY	16,357	689,169,601	532,836,693	488,124,244
84	2NK	477	670,974,828	353,686,327	221,724,639
85	ORIENT	4,168	655,937,848	359,259,624	572,330,035
86	COMOCO	2,262	655,136,519	509,448,322	525,210,520
87	FARIDI	4,934	643,827,206	402,801,952	333,826,582
88	BIASHARA	41,205	623,988,138	431,292,342	478,077,403
89	ECO-PILLAR	6,965	605,451,246	433,795,633	247,127,982
90	KINGDOM	10,519	580,208,026	462,717,954	436,486,350
91	FUNDILIMA	1,952	562,937,728	453,640,545	447,107,953
92	UNIVERSAL TRADERS	36,807	561,353,942	321,205,368	439,450,867
93	TRANSCOM	1,355	555,717,935	247,533,975	207,668,564
94	NAROK TEACHERS	2,522	554,396,621	385,180,526	473,500,806
95	PRIME-TIME	2,320	548,028,126	444,585,947	413,587,712
96	MAFANIKIO	3,609	534,444,329	322,200,801	360,786,989
97	DAIMA	28,277	504,089,724	323,798,589	245,146,562
98	AIRPORTS	1,523	502,861,315	355,029,493	364,277,002
99	STEGRO	18,238	497,938,021	233,382,882	205,705,243
100	MUKI	31,447	497,173,259	355,581,761	368,069,394
101	SKYLINE	18,687	489,472,195	388,304,555	367,195,706
102	KWALE TEACHERS	1,815	470,710,679	316,341,584	98,744,451
103	MOSACCO	54,172	426,215,850	174,892,059	201,019,929
104	MAGADI	1,299	424,339,220	326,128,476	301,762,103
105	MARSABIT TEACHERS	984	392,466,567	313,468,645	259,552,480
106	TARAJI SAVINGS	3,674	380,570,101	187,665,668	138,456,831
107	DHABITI	25,881	372,368,460	113,584,706	273,370,070
108	THAMANI	8,742	360,139,809	194,187,243	243,029,304
109	PATNAS	6,205	348,243,395	125,698,102	107,070,963
110	NAFAKA	1,197	347,934,128	265,096,377	284,171,909
111	VISION POINT	14,915	341,775,222	229,610,980	200,155,075
112	NYAMIRA TEA FARMERS	14,678	332,055,189	123,361,198	221,535,014
113	CENTENARY	10,282	331,464,589	268,544,562	296,181,606
114	NDETIKA RURAL	8,680	326,234,997	236,323,849	273,553,942
115	KIMBILIO DAIMA	12,746	301,670,247	213,615,181	195,210,653
116	COUNTY	7,137	299,473,102	156,362,231	153,246,234
117	MWINGI MWALIMU	1,468	290,426,297	210,115,245	224,281,160
118	KENYA	28,023	284,554,689	117,343,637	99,504,532

	ACHIEVAS				
119	LAINISHA	6,993	284,500,118	101,506,537	105,659,865
120	MAUA	1,518	273,544,798	171,352,604	189,475,354
	METHODIST				
121	JUMUIKA	1,135	272,305,757	170,977,491	111,892,686
122	KMFRI	2,825	241,036,762	190,669,051	197,735,970
123	PUAN	1,113	237,589,980	163,986,677	166,171,262
124	WEVERSITY	1,471	229,351,510	168,137,719	189,374,000
125	TIMES U	11,552	228,200,263	166,229,041	185,437,329
126	BARAKA	10,824	225,234,377	148,407,340	132,222,564
127	DUMISHA	10,346	221,860,934	127,862,760	130,130,994
128	KONONIN	14,110	216,671,281	93,204,923	164,844,045
	TEA GROWERS				
129	WAKULIMA	30,644	211,392,555	147,970,157	123,067,824
	COMMERCIAL				
130	NANDI HEKIMA	9,691	205,779,130	99,190,802	160,413,100
131	IMENTI	4,574	201,077,184	144,739,967	131,562,065
132	VISION AFRICA	12,058	191,609,074	153,334,329	154,545,599
133	STAKE KENYA	3,969	187,285,093	121,921,964	104,865,430
134	SUPA	1,594	181,986,379	143,008,166	145,338,077
135	SIRAJI	6,381	179,633,704	131,399,193	129,051,686
136	LAMU TEACHERS	6,429	176,333,976	103,543,891	97,189,506
137	NYALA VISION	13,031	168,151,382	128,575,152	89,919,818
138	WASHA	912	164,708,091	108,376,133	105,332,797
139	TENHOS	7,850	162,839,091	96,380,800	105,453,889
140	NDOSHA	3,612	162,213,142	94,682,629	115,466,184
141	LENGO	5,104	159,532,926	68,040,472	55,758,215
142	NYAMBENE	5,829	156,992,985	99,672,265	114,454,463
	ARIMI				
143	KENYA	12,582	155,114,612	28,031,681	96,275,595
	MIDLAND				
144	SMART	4,014	153,485,709	60,723,112	112,043,789
	CHAMPION				
145	JACARANDA	481	149,455,124	85,774,430	78,911,010
146	ELGON	669	143,675,000	99,046,670	68,903,942
	TEACHERS				
147	MUDETE	6,235	142,131,065	99,858,795	68,165,499
	TEAFACTORY				
148	UFANISI	508	139,229,635	100,405,527	120,408,437
149	RACHUONYO	1,055	136,306,239	87,796,099	112,473,532
	TEACHERS				
150	KIAMBAA DAIRY	2,861	132,509,375	101,786,348	111,252,337
	RURAL				
151	SOTICO	4,335	126,784,283	88,908,277	97,504,715
152	ENEA	14,948	125,896,653	94,944,653	39,283,689
153	NANDI FARMERS	1,600	122,168,389	69,181,930	74,107,742
154	NANYUKI	899	121,029,874	32,939,199	90,280,389

EQUATOR					
155	SUBA TEACHERS	722	117,152,577	92,832,087	76,751,522
156	BANANA HILL MATATU	1,935	107,557,674	75,315,954	73,807,507
157	FARIJI	3,924	103,040,072	65,524,900	86,358,779
158	AINABKOI RURAL	2,588	101,988,662	67,236,443	50,986,006
159	NUFAIKA	678	99,276,284	76,814,117	62,801,761
160	TRANSCOUNTIES	1,882	93,363,626	68,218,400	64,192,681
161	NYAHURURU UMOJA	1,621	91,290,359	62,128,079	72,135,405
162	AGROCHEM	447	91,288,867	64,371,703	70,388,161
163	BARATON UNIVERSITY	350	84,185,570	55,991,090	66,064,224
164	KIPSIGIS EDIS	2,569	82,246,069	57,478,186	67,998,732
165	MILIKI	4,030	81,726,361	35,482,105	33,814,151
166	ILKISONKO	2,809	79,044,927	53,089,195	69,242,213
167	UNI-COUNTY	474	77,195,455	53,546,423	55,527,512
168	KOLENGE	1,303	76,168,786	47,776,370	34,971,281
169	MWIETHERI	3,612	66,957,299	49,998,724	16,659,323
170	NEST	5,950	66,804,226	36,818,713	33,595,103
171	KORU	1,335	64,588,552	40,506,575	34,456,354
172	GOOD FAITH	2,678	62,345,243	41,164,997	56,248,725
173	UCHONGAJI	2,581	57,045,017	41,599,735	29,925,959
174	KATHERA	1,329	55,980,771	40,617,027	43,450,803
175	ALL CHURCHES	3,170	50,537,467	37,335,286	33,613,743
176	GASTAMECO	4,236	44,314,419	22,712,776	23,191,758
Grand Total			301.5 Billion	205.97 Billion	228.5 Billion
		3,008,497			

Source: SASRA database (2015)