AN INVESTIGATION INTO THE CHALLENGES FACING
IMPLEMENTATION OF ENTERPRISE RESOURCE PLANNING IN THE
DAIRY INDUSTRY IN KENYA
(A case of selected dairy firms)

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DECLARATION

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

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DEDICATION

I dedicate this work to my daughter Daniella Kendi, to my mum Mary and dad Sebastian, my sister Pauline and the entire family for the sacrifice they made for me to complete this project. Their love, care, concern, support, encouragement and enthusiasm inspired me to achieve this goal.
ACKNOWLEDGEMENT

I thank the Almighty God for all the Grace He has given me during my studies at Kenyatta University. I wish to extend my sincere gratitude to my supervisor Dr. Muathe for his invaluable academic guidance, assistance and patience in the whole process of preparing this project and whom, without their support it would have taken longer time to complete.

Finally I thank members of my family for the support and understanding they offered me. It was a great pillar on which I relied to complete this work.
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**DEFINITION OF TERMS**

**Dairy industry**: Dairy industry involves business enterprises established for the harvesting of animal milk – mostly from cows and goats, for human consumption.

**Enterprise Resource Planning**: Enterprise resource planning (ERP) systems are multi-module off the shelf software suites that seek to integrate and optimize a firm’s information flow, business processes, and functions to provide data in real time.

**Implementation**: This refers to as the carrying out, execution, or practice of a plan, a method, or any design for doing something.

**Strategy**: A method or plan chosen to bring about a desired future, such as achievement of a goal or solution to a problem.
ABSTRACT

In recent years there has been an increase in using Enterprise Resource Planning (ERP) systems in large companies and government corporations mainly in developed countries. While there is wide adoption of ERP systems in Western economies, developing countries lag far behind. However, due to recent economic growth, developing countries such as Kenya are increasingly becoming major targets of ERP vendors. There is an urgent need for understanding ERP implementation issues in developing countries, as ERP systems are still in their early stages in these countries. They face additional challenges related to economic, cultural and basic infrastructure issues. On the other hand, the dairy industry has faced tremendous growth since its inception and has gone through various changes in terms of liberalization therefore increasing competition for milk and milk products. Information management enables organizations in the dairy industry to survive the complex, turbulent and competitive business environment. This study investigated the challenges facing ERP implementation in the dairy sector. The target population of the study was the senior staff in the leading milk processors in Kenya. The researcher sampled 50 respondents from the ICT, marketing, production and business development departments that are concerned with strategies formulation and implementation. Primary data was collected using a semi-structured questionnaire consisting of open and closed ended questions. The questionnaire was administered through drop and pick-later method to the target population. Secondary data was collected through reading the existing material like the brochures and books. The data was coded and entered into Statistical Package for Social Science (SPSS) and descriptive analysis. Measures of central tendency were applied on the data and the findings, conclusion and recommendations of the study derived. Data was presented using bar graphs, percentages and frequency tables. The study found that in regard to employee knowledge and skills, majority of the respondents had diploma and university level of education, therefore they reported that were able to utilize the ERP model in their organizations. Majority agreed that some preparation were done before implementing the modals. The study established that majority of the employees reported of the stakeholders involvement in the ERP implementation, especially in offering technical expertise. On organization resources majority of the respondents reported that their organization devoted resources to the Implementation process. The main resources provided were financial related. Majority of the respondents reported that their organization had adopted customer oriented culture, majority cited poor data storage as a main organization cultural aspect the ERP implementation was meant to address. Majority reported that ERP has helped in regulating production line and inventory database therefore improving the organization culture in terms of efficiency. The study therefore concludes that all the independent variables namely; knowledge and skills, organization resources, stakeholders involvement and organization culture have a positive relationship and therefore significant to the implementation of ERP model in the dairy sectors in Kenya.
CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Food in Kenya is mostly grown by the peasants (Ministry of Agriculture; 2007). The main challenge has been its marketing and transportation. While parts of the country have surplus food, others have deficits. Farmers reduced the costs of marketing and transportation through economies of scale by banding together into cooperative societies. One such society, Kenya Cooperative Creameries Ltd (KCC) has been in operation since 1931 (Dairy Board, 2008). Such cooperatives lessened the burdens of the farmers through bulk buying, support services and availing information to farmers.

Recent changes in the business environment, namely, deregulation, privatisation, globalisation, and consequently increased competition, transformed large organizations into giant multinational corporations (MNCs). This changing business environment has also signified the need for companies to search for new ways to survive and succeed. Arguably, information technology offers the necessary tools for companies to respond effectively and efficiently to these changes. On the other hand, in this highly automated, IT-led business environment, companies are forced to keep up to date with the new technologies to remain competitive. An example of such technologies is an enterprise resource planning (ERP) system (Nicolaou, 1999).

Enterprise resource planning (ERP) systems are multi-module off the shelf software suites that seek to integrate and optimize a firm’s information flow, business processes, functions and to provide data in real time (Law and Ngai, 2007). An ERP system is a generic term for an integrated
enterprise-wide computing system. It encompasses a set of business applications (modules) used to carry common business functions such as accounting, stock control, logistics etc. The essence of a complete ERP system is to automate business processes, share common data across the organization but most importantly, to produce real-time data (Al-Mashari, and Zairi, 2000).

Furthermore, an ERP system can be used as a tool to help improve the performance level of a supply chain network by helping to reduce cycle times. However, it has traditionally been applied in capital-intensive industries such as manufacturing, construction, aerospace and defense. Recently, ERP systems have been expanded beyond manufacturing and introduced to the finance, health care, hotel chains, and education, insurance, retail and telecommunications sectors (Boykin, 2001).

There are several reasons why a continued growth of ERP projects is to be expected (Stensrud, 2001) the ERP vendors are continuously expanding the capabilities of their packages by adding functionality for new business functions such as sales force automation, supply-chain, order management, data warehousing, maintenance repair- and-overhaul, etc. The ERP vendors are transitioning to Web-based applications. This may lead to faster flow of information in the logistics chain, and therefore, many ERP customers will require these Web-based ERP systems. The emergence of e-commerce will also increase the demand for Web-based ERP systems. The share of ERP systems in certain geographical markets such as the former Eastern Bloc, Asia and South America is not widespread. ERP packages touch many aspects of a company’s internal and external operations. Consequently, successful deployment and use of ERP systems are critical to organizational performance and survival (Markus, Axline, Petrie, and Tanis, 2000).
benefits include drastic declines in inventory, breakthrough reductions in working capital, abundant information about customer wants and needs, along with the ability to view and manage the extended enterprise of suppliers, alliances and customers as an integrated whole (Chen, 2001).

Existing ERP systems that are currently available belong to the client server era. These systems are built with a clear separation of functional components. The user interface implemented using graphical user interface (GUI) techniques is deployed on client machines. Powerful server machines host the databases and business logic written as server procedures. The databases are built using relational database technology. Business logic is split, depending on the product architecture to be executed on the client, server or both. With suitable communication infrastructure, these systems could be deployed in a distributed process which may span across multiple geographical locations. As an example, a purchase request could be raised at a plant location to be processed by a purchase department located miles away from the plant (Nah et al, 2001).

The technologies deployed have allowed the ERP suppliers to meet the requisite objectives. 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. GUIs support the usability aspect of business systems by providing intuitive and consistent user interface. Object-oriented development practice employed in building GUIs has enabled the suppliers to provide for easy customization and extension of interface components to accommodate additional data entry. These technologies in general have allowed the users to architect the system in such a way that installation, customization and extensions are possible in shorter timeframes (Muscatello et al, 2003).
1.1.1. Dairy Industry in Kenya

The history of the dairy industry in Kenya date back to 1902 when the first exotic dairy cows were introduced by the European settlers. Animal were cross bred with indigenous cattle over time. The first creamery was established in 1922 in Naivasha (Kenya dairy board, 2008). The dairy sub-sector accounts for 14% of the agricultural GDP and 3.5% of national GDP. Smallholder dairy farmer’s account for approximately 75% of the total milk produced in the country (Dairy Board, 2011).

The liberalization of the dairy industry in 1992 led to the rapid growth of the informal milk trade dealing mainly in marketing of raw milk that controls an estimated 80% of the total marketed milk in Kenya. As a result of this situation, several challenges relating to quality control and standards have emerged and need to be addressed. In the past, dairy policy in Kenya has focused on increasing the market share of pasteurized milk and value addition while attempting to address potential public health risks of consuming raw milk. Legislation passed in 1958 created the Kenya Dairy Board (KDB) to regulate milk marketing and encourage the highest degree of private enterprise and high milk quality (Dairy board, 2011).

Smallholder dairy farmers accounts to over 80 percent of the country’s total milk production which currently stands at approximately 3.8 billion litters annually. About 45% of the total production is consumed at home or fed to calves whereas approximately 55% is marketed. 86 percent of the 55% (almost 50% of total production) of the marketed milk get to the consumer through “warm-chain”. This is either directly from farm to consumer, (approximately 42%) or from farm through milk bar, shops, kiosks, mobile traders and dairy cooperative societies (approximately 44%) to consumer. Only 14% of the marketed milk get to consumer through “cold-chain” either directly from farm to a
processors or through dairy cooperative societies (approximately 12%) which is then distributed to consumers after processing. For processors and marketers of milk and milk products to meet the growing consumer demand and to compete effectively with imports and competing beverages and foods, quality assurance (with respect to consumer perception of quality) is paramount. Milk processing process is very fragmented and the information require proper management (Rehber, 2000).

1.2. Statement of the problem

ERP is intended to deliver a significant improvement over the non-holistic nature of earlier organizational information systems. There are therefore reports of ERP systems providing benefits such as cost reductions, improved productivity, better managerial decision-making, and facilitation of process or structural change (Federici, 2009). However, previous studies show that there are challenges in the use of ERP. Many ERP systems still face resistance, and ultimately, failure and that between 50 percent and 75 percent of U.S. firm’s experience some degree of failure with the recent survey revealed that 65 percent of executives believe ERP implementation has at least a moderate chance of hurting their business. (Umble & Umble, 2002). Three quarters of the ERP projects are considered failures and many ERP projects ended catastrophically (Rasmy et al., 2005). Developing countries formally looked set to become the locus for a major expansion of ERP implementations (Molla & Bhalla 2006). Yet, at the same time, reports have emerged of ERP failures in these countries suggesting that developing country implementations face specific difficulties over and above those found in industrialised countries (Soja, 2008). Jones, Cline and Ryan (2006) clearly demonstrated that for IT projects to succeed top management support is critical, this also applies to ERP implementations. In Kenya,
context, some companies make the mistake of handing over the responsibility of ERP implementation to the technology department. This risk the entire company's survival because of the ERP system's profound business implications. For instance, the state-owned Uchumi supermarket chain closed down in June 2006 after admitting it was insolvent, rendering more than 1,000 employees out of work and leaving debts of hundreds of millions of Kenyan shillings. The over-ambitious expansion strategy and the poor installation of the ERP system were cited by experts as some of the reasons which contributed to insolvency, especially since they were financed out of working capital which resulted in tying up the much needed financial resources to pay off suppliers, employees and other trade creditors. Analysts further argued that the ERP system was poorly integrated and implemented, staff were poorly trained, and costs were unjustifiable. The Uchumi supermarket experience is an example that there is an urgent need for understanding ERP implementation practices in less developed countries, and in Kenya in particular, because these systems are still in their early stages in these countries and face economic, cultural and infrastructure challenges.

On the basis of this background the growing investment in, and potential of, ERP systems in developing countries combined with high rates of failure but relatively little literature on ERP experiences in developing countries this paper sets out in general terms to address the question of why ERP projects fail in developing countries. The researcher investigated on the challenges facing ERP implementation in the dairy farms in Kenya.
1.3. **Research Objectives**

1.3.1. **General objectives**

The main objective of this study was to investigate the factors that influence ERP systems implementation in the dairy industry.

1.3.2. **Specific objectives**

i. To evaluate the effect of employees’ knowledge on implementation of ERP systems in the dairy industry in Kenya.

ii. To establish the effect of availability of resources in implementation of ERP systems in the dairy industry in Kenya.

iii. To evaluate the effect of stakeholder involvement on implementation of ERP systems in the dairy in Kenya.

iv. To determine whether Organizational Culture affects implementation of ERP systems in the dairy industry in Kenya.

1.4. **Research questions**

i. How does employees’ knowledge affect implementation of ERP systems in the dairy industry in Kenya?

ii. Which available resources affect implementation of ERP systems in the dairy industry in Kenya?

iii. How does stakeholder’s involvement affect implementation of ERP systems in the dairy in Kenya?

iv. How does organizational Culture affect implementation of ERP systems in the dairy industry in Kenya?
1.5. Importance of the Study

The findings of this research are expected to contribute towards ERP implementation practice. The findings of this research are expected to be of importance to various stakeholders. For example, Vendors who contemplate entering foreign markets can use the findings so as to better understand global ERP markets and develop better strategy.

ERP implementing firms can also recognize the environmental and internal requirements and prepare accordingly. Given the complexity and integrated nature of ERP and large investment involved it is imperative for organization to study the experiences of others, and learn from their practices and success factors. In this light, organization planning to implement ERP in Kenya can learn from the successes and failures of the case study organization and therefore, avoid pitfalls which can lead to ERP project failures. Based on the findings of this research, we intend to come up with a set of systematic steps (implementation guideline) and a methodology for helping managers, implementers and organization adapt to the demands of the environment.

The study was a source of reference material for future researchers on other related topics; it may also help other academicians who undertake the same topic in their studies. The study also highlighted other important relationships that require further research. The scholars and researchers who would like to debate or carry out more studies on ERP may find this study useful.

1.6. Scope of the study

The study was investigating the factors affecting the implementation of Enterprise Resource Planning (ERP) systems in Kenya. The study focus more on Utilization of ERP in dairy industry,
this study was limited to 5 leading dairies in Kenya based on market shares and profitability, namely Ndumberi dairy, Brookside dairy, the new Kenya Cooperative Creameries, Limuru dairy and Githunguri dairy, the study interviewed the senior staffs who are concerned with strategies formulation and implementation in the respective dairies.

1.7. **Limitation of the study**

Milk dairy as a business unit is very busy and sensitive to interruptions. As a result, the researcher may have some limitation with response rate. This is because the target population are in most cases very busy carrying out transactions during the day such that getting some time for an interview may prove a challenging and difficult. This limitation was mitigated by allocating more time to data collection as well as constant phone call as reminder.

The respondents had imaginary fear of giving the information to competitors and this would limit the accuracy of the information given. This limitation was countered by assuring confidentiality of information to the respondents. The information was purely for academic purposes and not any other purpose.
CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter summarizes the information from other researchers who have carried out their research in the same field of study. The specific areas covered here are theoretical and empirical review and the conceptual framework. It identifies the factors that drive businesses towards successful implementation of growth strategies such strategies include enterprises resource planning systems.

2.2. Theoretical Review

2.2.1. Change theory

Since the ERP implementation involves changing the business processes of companies that implement such software, change theory may prove useful in explaining the outcomes of our case studies. Business process change (BPC) is defined as organizational initiative to design business processes to achieve significant (breakthrough) improvement in performance (e.g. quality, responsiveness, cost, flexibility, satisfaction, shareholder value, and other critical process measures) through changes in the relationships between management, information technology, organizational structure, and people. These initiatives may differ in scope from process improvement to radical new process designs depending on the degree of change undertaken in each organizational subsystem and their interactions. Thus, in any examination of BPC outcomes, consideration should be given to the environmental conditions for change and the ability of the organization to manage change in these conditions (Papinniemi, 1999).
Kettinger and Grover (1995) have proposed a model that considers both these aspects of BPC management. According to their model, any significant business process change requires a strategic initiative where top managers act as leaders in defining and communicating a vision of change. The organizational environment, with a ready culture, a willingness to share knowledge, balanced network relationships, and a capacity to learn, should facilitate the implementation of prescribed process management and change management practices. Process and change management practices, along with the change environment, contribute to better business processes and help in securing improved quality of work life, both of which are requisite for customer success and ultimately, in achieving measurable and sustainable competitive performance gains.

This study was informed by the change theory which is one of the most heavily referenced in technological implementation. Many authors have attempted to address how and why changes occur, but the pioneer is, perhaps, Kurt Lewin. Lewin (1951) identified three stages through which change agents must proceed before change becomes part of a system these include: Unfreezing (when change is needed). Moving (when change is initiated). Refreezing (when equilibrium is established). He also discussed how certain forces can affect change, which he called force-field analysis. Lewin’s work was expanded and modified by Rogers (2003), who described five phases of planned change as: awareness, interest, evaluation, trial and adoption.

2.2.2. Agency Theory

Basic agency paradigm was developed in the economics literature during 1960s and 1970s in order to determine the optimal amount of the risk-sharing among different individuals. However, gradually the domain of the agency theory was extended to the management area for determining
the cooperation between various people with different goals in the organization, and attainment of the goal congruency (Zimmerman, 2010).

Agency theory relates to situations in which one individual (called the agent) is engaged by another individual (called the principal) to act on his/her behalf based upon a designated fee schedule. Since both individuals are assumed to maximize utility, and are motivated by pecuniary and non-pecuniary items; incentive problems may arise, particularly under the condition of uncertainty and informational asymmetry. That is, the objective function of the principal and the agent may be incompatible, and therefore, the agent may take actions which will jeopardize the principal's benefits. In addition, an agency operates under the condition of risk and uncertainty. In effect, the basic agency theory usually assumes that both individuals are risk averse. Under this circumstances, the amount and content of the produced accounting information and other information sources would become a significant issue in risk sharing and controlling the agent's actions (Baiman, 1990).

2.3. Empirical review

2.3.1. Employee knowledge
Employee knowledge is one of the most significant factors determining a successful implementation of enterprise resource planning systems in an organisation. The majority of research works have placed a particular emphasis on top management support as prerequisite for a successful implementation of ERP systems. The mission of top management is to create a favourable environment for the implementation of ERP systems and attaining of desired results. Top executives must not only be observers, but also be participants of the implementation process of ERP systems. The role of top management in implementation of enterprise resource planning
systems covers formulation of real and justified goals based on the awareness of the opportunities and limitations provided by Information technology (Zuckweiler et al., 2003).

Project management is a professional activity based on contemporary scientific knowledge, experience, methods, means and technologies and focusing on high results. Management of ERP implementation projects is somewhat different as compared to management of any other information technologies project (Adam et al., 2005). Peculiarities of technical equipment and software as well as organisational and human resources stretch ERP implementation projects and make them unquestionably complex as well as requiring new project management abilities. The complexity of ERP implementation projects particularly requires extensive methodical planning and weighted management. The knowledge, workmanship, abilities and proficiency of a project manager are viewed as the key factors determining the success of ERP implementation or its failure (Akkermans & Helden, 2002).

According to Hawking et al., (2004) training of prospective users how to use a system and education of users relating to new business processes is a vital implementation activity. The absence of user training and lack of understanding as to how an enterprise resource planning system is going to change an organisation’s business processes are often referred to as a problem resulting in a failed implementation of ERP systems. Education and training stand for a process in the course of which executives and employees are familiarised with the logic and idea of enterprise resource planning systems. Education helps all employees to develop a better understanding of how their work is related to other functional areas of a company. Companies are advised to train each user to
use a system by explaining how his work relates to certain business processes and how his work is going to be affected by the new system (Akkermans & Helden, 2002).

The decision of adopting an ERP system depends on the company, while the usage and effort invested in learning the system rely on employees. While training increases the ability to use an information system (IS) application, training programs are always provided before IS application implementation. Training prior to implementation is important, yet powerful and integrated IT applications force users to continue learning new skills. Doll *et al.* (2003) indicate that a lack of continuous IT learning will cause a gap between how IT is actually used and the realization of its full potential. Post implementation learning is continuous learning after an IS system has gone live. He also suggest that post-implementation learning is the key to realizing IT’s full potential. The more users continue to learn, the more effectively IT is used and the greater its impact on work (Doll, *et al.*, 2003).

### 2.3.2. Availability of Organization resource

Organization resources refer to all the resources required for a project such as financial resources, natural resources, human resources etc. Resource allocation involves the planning of all the resources required for the project. Economic environment is changing rapidly and this change is characterized by such phenomena as the globalization, changing customer and investor demands, ever-increasing product-market competition. To complete successfully in this environment, organizations continually need to improve their performance by reducing cost, innovating products and processes and improving quality, productivity and speed to market. Strategic management is an ongoing process that evaluates and controls the business and the industries in which the company is
involved, assesses its competitors and set goals and strategies to meet all existing and potential competitors. It then reassess each strategy to determine how it has been implemented and whether it has succeeded or needs replacement by a new strategy to meet changed circumstances, new technology, new competitors, a new economic environment, or a new social, financial or political environment (Raduan et al., 2009).

According to Albano and Borges, (2001), the successful implementation of system takes more time than its formulation. This can challenge managers’ attention to execution details: Along framework can detract managers’ attention from strategic goals. Controls must be set to provide feedback and keep management abreast of external shocks and changes. The process of execution must be dynamic and adaptive, responding to unanticipated events. Lack of resources is generally a bigger threat to capital intensive strategies. They observed this failing in both fast-growth, new companies that feel understaffed due to growth demands and companies under heavy competitive pressure” who felt they could not spare resources to drive strategic innovation.

In a discussion of the causes of re-engineering failure, Albano and Pino (2001) refer to the inadequate treatment of the human aspect when implementing ERP-related change. Blair, (1997) discusses some elements of human change management which he describes as the more difficult challenge. He further explains how ERP represents a danger to people when it introduces new job structures and definitions, and forces employees to change their work style. Hammer and Champy classify the human factor as a major dimension that ERP-related improvements should focus on. They recognize the importance of the human resource when they state companies are not asset portfolios, but people working together to invent, sell and provide service. However, they fail to
demonstrate how to reengineer the human resource in conjunction with reengineering processes. Although Hammer and Champy (1993) provide a long list of why reengineering fails, nowhere do they include the prerequisite that no reengineering effort will succeed without first reeducating and retraining the people who will ultimately work with the new process (Hammer & Champy, 1993).

2.3.3. Stakeholders involvement

Though the cost of an ERP system is very high, it becomes insignificant in the face of the benefits a proper ERP implementation provides in the long run (Sadagopan, 1999). A study of small and medium scale industries (SMI) of India revealed that for ensuring successful ERP implementation the six major factors on clarity in goals and objectives behind the implementation; adequacy of user training, competency of the project implementation team, acceptance of changes brought about by the implementation and adequate vendor support and external consultant participation had a key role to play. (Upadhyay et al, 2008).

Similar studies conducted in china by creating interactive structural model have identified four critical factors on the funds support, department’s participation; training and service of the supplier of ERP which influence the system of ERP implementation most directly. The four factors above are critical factors which decide the ERP system is successful or not (Ranzhe et al, 2007). The best practices for ERP implementation in organizations are investigated by using a problem driven approach by dividing implementation process into several components which reflect the nature of ERP projects and makes them distinctive from other systems design. Effective communication is critical to ERP implementation where expectations at every level need to be communicated to all
stakeholders. Management of communication, education and expectations are critical throughout the organization (Wee, 2000).

Vijaya et al., (2010), did a study to prioritize the issues affecting ERP system in medium scale fertilizer industry and the following factors were determined: adequate and correct data, training and testing, never run parallel system, conference room pilot, employee retention, customization, and clarity in management objective, external consultant dependency. Further to this the researchers Upadhyay and Dan (2009), identified certain factors that have been found to be critical in context to implementation of IT projects. Seven factors have been identified that are found to be crucial are: Support from top management, goals and objectives, user knowledge, project champion, project team competency, improve work efficiency, scalability & scope and ERP importance. Out of this the first two are considered as most important (Upadhyay & Dan, 2009). Through regular communication, working with change agents, leveraging corporate culture and identifying job aids for different users.

2.3.4. Organization culture

Ojo (2010) defined organizational culture as the values and behaviors that contribute to the unique social and psychological environment of an organization. He perceive organisation culture as a set of values that help organisational members know that which is acceptable and that which is unacceptable within the organization. It includes an organization's expectations, experiences, philosophy, and values that hold it together, and is expressed in its self-image, inner workings, interactions with the outside world, and future expectations. It is therefore based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and
are considered valid (Ojo, 2010).

ERP implementations usually involve broad organizational transformation processes, with significant implications on the organization’s management model, structure, management style and culture, and particularly, on people (Caldas & Wood, 1999). ERP market will continue to be one of the largest, fastest growing, and most influential in the applications industry, and is poised for steady growth into the coming years. Before ERP came into existence, different departments had their own software system to meet their requirements. This resulted in a fragmentation of information, as all of the information was stored separately on different systems in the organizations, sometimes spread across different geographical areas of the world. This made it impossible to get accurate information on time.

The principal factor of a successful ERP implementation is an organisation’s culture valuing trust between partners, employees and executives as well as stressing such values as rising of common goals above personal aspirations. An ERP is an integrated information system, so its designing, installation and use require a particularly close co-operation of employees of all business segments of an enterprise. A full and open communication influences success and facilitates the education of the organisation’s employees. Close co-operation and communication among the employees of the organisation is referred to not only as the critical factor of a successful ERP implementation, but also as a benefit provided by a system (Zuckweiler et al. 2003).

In 1990s, globalization led to immense competition and companies, especially in the manufacturing sector therefore firms had to realized the need for more customer focus and shortened product life
cycles. Corporations had to move towards agile manufacturing, continuous improvement of business processes and business process reengineering. This required an integration of manufacturing with other functional areas like accounting, marketing, HR, etc. This led to the evolution of ERP systems. ERP combines all the business functions together into one single integrated system with a single central database. This system serves the information needs of all the departments across geographies, while allowing them to communicate with each other. ERP system consists of modules for manufacturing, Production Planning, Quality Management, Financial Management, Human Resource, Manufacturing and Logistics and Sales and Distribution. Once an enterprise wide implementation is in place, operating managers are relieved of routine decisions and they thus have the time to plan and execute long-term decisions that are vital for the growth of an organization (Sadagopan, 1999).

A fairly serious problem of ERP implementation lies in a system’s incompatibility with an organisation’s culture and its information provision needs. When selecting a system, organisations usually consult specialists, who recommend the systems best meeting the needs of that branch of business. However, irrespective of the suitability of a system, no universal ERP system suitable for all enterprises exists. In the course of ERP implementation, an organisation almost always needs to decide whether to reorganise organisational culture according to the logic proposed by a system or to modify the system by adapting it for existing culture of the organisation. An enterprise resource planning system itself cannot improve an organisation’s work until it restructures its business processes. In order to obtain a tangible benefit provided by enterprise resource planning systems, it is necessary to reorganise an organisation’s business processes according to the logic proposed by a system. An enterprise must be prepared for the acceptance of the best practice contained in
enterprise resource planning systems and modelling of its business processes according to their
description in the system (Zuckweiler et al., 2003).

2.4. Summary of Literature & Research Gap

Although formulating a consistent strategy is a difficult task for any management team, making that
strategy work by implementing it throughout the organization is even more difficult. A myriad of
factors can potentially affect the process by which strategic plans are turned into organizational
action. ERP as an organization development strategy is thus a key challenge for today’s
organizations. There are many (soft, hard and mixed) factors that influence the success of the
system implementation, ranging from the people who communicate or implement the decision to
the systems or mechanisms in place for co-ordination and control. How can we better understand
these issues and their importance for successful ERP implementation? In this article, we try to
respond to this question by analyzing existing research on the factors that influence strategy
implementation in the corporate sector. We have conducted an analysis in the most widely used
literature databases to identify key factors influencing the process of ERP implementation,
However there is limited literature on the ERP implementation in the dairy industry and this
warrant this study.

2.5. Conceptual framework

This is a model explaining the relationship between variables (dependent and independent
variables). Mugenda (2003) defines an independent variable as one that a researcher manipulates in
order to determine its effects on another variable. Dependent variable on the other hand is one that
varies as a function of the independent variable. The independent variables in this case comprise of
employee skills and knowledge, organization resources, stakeholders involvement and organizational culture while the dependent variable was implementation of ERP in the dairy industry

**Independent Variables**

**Dependent variables**

- Employees’ knowledge
  - Training
  - Job experience

- Organization resources
  - Finance
  - Human resource

- Stakeholders’ involvement
  - Shareholders
  - End users

- Organizational culture
  - Customer orientation
  - Profit orientation

Implementation of enterprise resource planning in the dairy industry in Kenya
  - Efficient work process

**Figure 2.1: Conceptual framework**

**Source** (Research, 2014)

**2.5.1. Operationalization of Variables**

**Employee knowledge:** Successful ERP implementation is highly affected by the way team members are selected and managed; they should be experienced in various techniques such as strategic visioning, change management as well as technical knowledge. People with job experience should be included in bringing new ideas in ERP implementation efforts. Limited expertise in IT generally tends to result in lesser user involvement and participation.
**Organizational resource**: This refers to all the resources required for a project such as financial resources, natural resources, human resources etc. Resource allocation involves the planning of all the resources required for the project management. It helps manager to utilize only those resources which are required efficiently and effectively.

**Stakeholders’ involvement**: User involvement and participation refers to the behaviors and activities that users perform in the system implementation process. It refers to a psychological state of the individual and is defined as the importance and personal relevance of a system to a user. Research has shown that implementations are far more likely to achieve their goals when users are given the proper training to master the new solution at the start of the implementation.

**Organizational culture**: Implementation of ERP is influenced a lot by culture because culture affects not only human relationships at the work place but also their attitude towards change which in itself is the central theme of ERP. Some scholars have suggested that in order to effectively implement ERP, organizational culture must be changed.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Introduction
This chapter covers the overall methodology used in the study; the research design, population and sample, data collection methods and research procedures are detailed.

3.2. Research design
The study employed a descriptive survey design. Mugenda and Mugenda (2003) described descriptive survey as collecting data in order to test hypothesis or to answer questions concerning the current status of the subject of study. Descriptive research design enables the researcher to generalize the findings to a larger population. The descriptive research design approach has been credited due to the fact that it allows analysis and relations of variables.

3.3. Target population
The target population of the study included the managers from the Information communication and Technology department, Marketing department, business development and production department that are concerned with the implementation of Enterprise Resource planning system in the respective dairy companies. These are the departments that are directly involved in the implementation of ERP system in an organization.
Table 3.1 Target population

<table>
<thead>
<tr>
<th>Company Department</th>
<th>Marketing</th>
<th>Production</th>
<th>Business development</th>
<th>ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ndumberi</td>
<td>6</td>
<td>3</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Brookside</td>
<td>15</td>
<td>5</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>New KCC</td>
<td>21</td>
<td>9</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Limuru</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Githunguri</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>20</strong></td>
<td><strong>85</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Source: (Dairy Board, 2014)

3.4 Sampling design and procedure

Purposive sampling was used to select respondents from business development department; marketing, production as well as ICT department of each dairy company. This aimed at selecting the respondents with vast experience in the implementation of ERP system in their organization. The study used a 30% of the target population. This comprised a sample size of 50 respondents who were used in data collection.

Table 3.2 Sample Size

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Multiplier</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>52</td>
<td>.3</td>
<td>15</td>
</tr>
<tr>
<td>Production</td>
<td>20</td>
<td>.3</td>
<td>6</td>
</tr>
<tr>
<td>Business development</td>
<td>85</td>
<td>.3</td>
<td>25</td>
</tr>
<tr>
<td>ICT</td>
<td>14</td>
<td>.3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>171</strong></td>
<td></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Source (Researcher, 2014)
3.5. Data Collection Instrument

Both primary and secondary data was used, primary data was collected using self-administered questionnaire while secondary data was collected by reading through the dairy published reports, brochures, journals and periodicals. The questionnaire consisted of open-ended and closed ended questions. This enabled a better understanding and an insightful interpretation of the results from the study.

3.5.1. Validity of data collecting instrument

The accuracy of data collected largely depends on the data collection instruments in terms of validity and reliability. Robinson (2002) defines validity as the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. To ensure validity the researcher used expert views by requesting the competent supervisors to assess the relevance of the content in the questionnaire.

3.5.2. Reliability of data collecting instrument

Reliability on the other hand refers to a measure of the degree to which research instruments yield consistent results (Mugenda et al, 2003). Pre testing technique was used to test the reliability of the questionnaire. The pretest was conducted at Githumu dairy before the collection of data because it shares similar conditions with the target population. Any ambiguous question was noted and corrected before printing the final questionnaire.

3.5.3. Data collection Procedure

The questionnaires was self-administered through drop and pick later method. To enhance response rate the researcher conducted several phone calls to remind the respondents on the need to fill the questionnaires.
3.5. Data Analysis and Presentation

The qualitative data was analyzed using content analysis which is the best suited method of analyzing secondary data. Quantitative data was analysed through the use of a combination of descriptive statistics particularly frequency distributions, percentages mean and standard deviation. Inferential statistics such as regression and correlation was used to analyze the qualitative data. Statistical tool SPSS (Statistical Package for Social Science) was used to analyse and present the specific issues through coding and summarizing the responses of all the respondents. The following regression model was used.

Where: \( Y = \alpha_0 + \alpha x_1 + \alpha x_2 + \alpha x_3 + \alpha x_4 + \epsilon \)

- \( Y = \) Implementation of ERP
- \( \alpha_0 = \) Constant
- \( x_1 = \) Employee skills
- \( x_2 = \) Organization resources
- \( x_3 = \) Stakeholders involvement
- \( x_4 = \) Organizational culture
- \( \epsilon = \) Error term

The data was presented using frequency tables and graphs.
CHAPTER FOUR
RESEARCH FINDINGS

4.1 Introduction

This chapter presents the data analysis and interpretation and discusses the findings of the study in line with the specific objectives of the study.

4.1.1. Overview of analyzed data

The data was collected using questionnaire method comprising of closed ended and open ended questions. The questionnaires were self-administered to the respondent during the normal working hours of the week and a drop and pick later method was preferred for the exercise. Out of the 50 questionnaires that were given 45 questionnaires were returned. This represents a response rate of 90% which is significant to give reliable findings for this study. According to McBurney (2001), a low response rate could have a potentially biasing effect on the study results. However, above 70% response rate is acceptable for the study. The table 4.1 below shows the response rate:

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Respondent</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>Actual Respondents</td>
<td>45</td>
<td>90%</td>
</tr>
<tr>
<td>Target Population</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: (Field data, 2013)
4.2 Demographic Information

In order to capture the general information of the employees in the dairy societies, issues such as gender and age of the respondents, level of education and the years of service in current position were discussed.

4.2.1. Gender of employees

The findings showed that majority (51%) of the respondents were men while female constituted 49% of the employees. The findings are illustrated in the figure 4.1 below.

![Figure 4.1 Gender of employees](image)

**Figure 4.1 Gender of employees**

**Source:** (Field data, 2014)

4.2.2. Age of employees

Findings indicate that 42.2% of the respondents were between the ages of 41 to 50 years, 40% of the employees were between the ages of 31 to 40 years, 11.1% of the employees were those aged above 50 years and 6.7% of the employees aged between 20 to 30 years. This suggests that most of the employees are of the age brackets of 31 to 50 years which is considered to be the productive years. The findings are shown on the table 4.2 below.
Table 4.2: Respondents Age

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30 years</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>31-40 years</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>41-50 years</td>
<td>19</td>
<td>42.2</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>5</td>
<td>11.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.2.3. Level of Education

The findings indicate that majority (53.3%) of the respondents have diploma level of Education, 20% have university education, with 15.3% having certificates in system application, 8.9% possess post graduate level of education as their highest academic qualification while 2.5% had basic education. The table 4.3 below shows the educational level of the dairy society’s employees.

Table: 4.3: Education level

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary level</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Certificate level</td>
<td>7</td>
<td>15.3</td>
</tr>
<tr>
<td>Diploma education</td>
<td>24</td>
<td>53.3</td>
</tr>
<tr>
<td>University level</td>
<td>9</td>
<td>20.0</td>
</tr>
<tr>
<td>Post graduate</td>
<td>4</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.2.4. Department of work

The findings indicates that majority(42%) of the respondents worked in production department, 25% were working in ICT department, 17% were in marketing department while 16% were in
business development department. This is shown in the table

Table 4.4 department of work

<table>
<thead>
<tr>
<th>Department</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Production</td>
<td>19</td>
<td>42</td>
</tr>
<tr>
<td>Business development</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>ICT</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.2.5. Position of work

Majority (38%) of the respondents were program coordinators in their respective department, 32% of the respondent held other positions such system administrators, inventory control etc, 25% of the respondents were senior managers while 5% of the respondents were senior managers. This is illustrated in the figure 4.2

Figure 4.2 Position held in the organization
Source: (Field data, 2014)
4.2.6. Duration of service

Findings indicate that majority (57.8%) of the employees in daily societies have worked for between 4 to 6 years, 24.4% have worked for between 1 to 3 years, 15.6 % have worked for 7 to 10 years while 2.2% have over 10 years of experience in their current position.

Table 4.5 Duration of service

<table>
<thead>
<tr>
<th>Work experience</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 3 yrs</td>
<td>11</td>
<td>24.4</td>
</tr>
<tr>
<td>4 to 6 yrs</td>
<td>26</td>
<td>57.8</td>
</tr>
<tr>
<td>7 to 10 yrs</td>
<td>7</td>
<td>15.6</td>
</tr>
<tr>
<td>Above 10 yrs</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

FINDINGS RELEVANT TO THE STUDY OBJECTIVES

4.3. Employee Knowledge and skills

Majority (78%) of the respondents felt that most of the ERP users were able to operate the system; however, 22% of the respondents were of contrary opinion stating that not all user were able to operate the ERP modal in their organizations. The findings are represented in the figure 4.3
4.3.1. ERP implementation arrangement

Majority (98%) of the respondents reported that some arrangements were done before system implementation in their firm while 2% said no necessary arrangement were conducted before ERP implementation as illustrated in the figure 4.4.
4.3.2. ERP Pre implementation activities

Majority (31.1%) cited organization needs assessment as the major activity done before implementation, 26.7% said back up exercise as the major activity, 17.8% indicated staff training, 13.3% cited system testing as the major activity while 11.1% highlighted facts finding as the major activity.

Table 4.6 Pre implementation activities

<table>
<thead>
<tr>
<th>Preparation activities</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization need assessment</td>
<td>14</td>
<td>31.1</td>
</tr>
<tr>
<td>Facts finding</td>
<td>5</td>
<td>11.1</td>
</tr>
<tr>
<td>ERP testing</td>
<td>6</td>
<td>13.3</td>
</tr>
<tr>
<td>Back up storage</td>
<td>12</td>
<td>26.7</td>
</tr>
<tr>
<td>Staff training</td>
<td>8</td>
<td>17.8</td>
</tr>
<tr>
<td>Totals</td>
<td>45</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.3.3. Effects of employee skills and knowledge on ERP performance

The finding shows that Majority agreed Market efficiency is possible with ERP as represented by (4.61) mean score, Inadequate marketing information impact on decision making process( 4.30 mean score), Outdated and inadequate infrastructures affect the level of performance of ERP(4.22 mean score), Management skills affects the level of performance of ERP(4.12 mean score), Inexperience of managers affects performance of ERP(4.05 mean score), The respondents agreed that there is competent team in ERP management in their organization(3.56 mean score) and that Managers have adequate management training to enable proper management(3.51 mean score). However, majority of the respondents were not sure whether training has assisted in the running of ERP in their organizations( 3.20 mean score).
**Table 4.7 effects of employee skills and knowledge on ERP modal**

<table>
<thead>
<tr>
<th>Skills and knowledge</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers have adequate management training</td>
<td>3.51</td>
<td>0.08</td>
</tr>
<tr>
<td>The training has assisted in the running of ERP</td>
<td>3.20</td>
<td>0.56</td>
</tr>
<tr>
<td>Management skills affect the level of performance of ERP.</td>
<td>4.12</td>
<td>0.21</td>
</tr>
<tr>
<td>Inexperience of managers affects performance of ERP</td>
<td>4.05</td>
<td>0.05</td>
</tr>
<tr>
<td>There is competent team in ERP management</td>
<td>3.56</td>
<td>0.11</td>
</tr>
<tr>
<td>Market efficiency is available with ERP use</td>
<td>4.61</td>
<td>0.01</td>
</tr>
<tr>
<td>Outdated and inadequate infrastructures affect the level of performance of ERP</td>
<td>4.22</td>
<td>1.05</td>
</tr>
<tr>
<td>Inadequate marketing information impact on decision making process</td>
<td>4.30</td>
<td>0.98</td>
</tr>
</tbody>
</table>

**Source:** (Field data, 2014)

**4.4 Stakeholders involvement**

**4.4.1 ERP target needs**

Majority (63%) of the respondents felt that ERP system were meant to addressed the organizational needs, 26% stated that the ERPs addressed the employees’ needs while 11% viewed the ERP solutions as addressing the community needs. This is illustrated in the figure 4.5

![Figure 4.5 ERP target needs](image)

**Source:** (Field data, 2014)
4.4.2. ERP System selectors

The findings shows that majority(51.1%) of the respondents felt that organization management are the major selectors of policies in their organization, 33.3% of the respondents stated that shareholder select the policies to be implemented, 11.1% of the respondents cited employees involvement while 4.4% of the respondents stated vendors are involved in the policies and especially system implementation.

Table 4.8 System Policy selectors

<table>
<thead>
<tr>
<th>Selectors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>23</td>
<td>51.1</td>
</tr>
<tr>
<td>Employee</td>
<td>5</td>
<td>11.1</td>
</tr>
<tr>
<td>Shareholders</td>
<td>15</td>
<td>33.3</td>
</tr>
<tr>
<td>Vendors</td>
<td>2</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.3.4 Members satisfaction with ERP modal

Majority(48.9%) of the respondents were to a great extent satisfied with ERP modal implemented, 31.1% were to a moderate extent satisfied, 13.3% were at a minimal extent, while 4.4% were satisfied to a very great extent 2.3% was not sure. This illustrate that majority were happy with their system choice.
Table 4.9 ERP choice satisfaction

<table>
<thead>
<tr>
<th>ERP choice satisfaction</th>
<th>Frequency</th>
<th>Mean</th>
<th>S.D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>very great extent</td>
<td>2</td>
<td>4.56</td>
<td>0.15</td>
<td>4.4</td>
</tr>
<tr>
<td>great extent</td>
<td>22</td>
<td>4.32</td>
<td>0.78</td>
<td>48.9</td>
</tr>
<tr>
<td>moderate extent</td>
<td>14</td>
<td>3.58</td>
<td>1.04</td>
<td>31.1</td>
</tr>
<tr>
<td>minimal extent</td>
<td>6</td>
<td>2.41</td>
<td>1.58</td>
<td>13.3</td>
</tr>
<tr>
<td>not at all</td>
<td>1</td>
<td>1.05</td>
<td>0.90</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.4.4. Respondents roles in ERP implementation

Majority (44.4%) of the respondents reported offering technical expertise in the implementation process, 33.3% reported being part of the management team, 11.1% of the respondents were leaders in the ERP projects, 6.7% reported sponsoring the process while 4.5% were indirectly involved.

The results are illustrated in the figure 4.6

![Figure 4.6 ERP implementation roles](image)

Source: (Field data, 2014)
4.4.5. Effects of end users involvement

Majority (45%) of the respondents said that end users involvement in ERP implementation assist in system modification, 37% reported that it lead to ERP improvement and 18% reported that it helps in field training. This illustrate the importance of involving the end users in the ERP implementation as shown in the figure 4.7

![Figure 4.7 Effects of end user involvement](image)

Source: (Field data, 2014)

4.5 Organization resources

4.5.1. Availability of organization resources

The findings indicate that majority (97%) of the respondents concurred that their organization provided resources for ERP implementation while 3% disagree that their organization provided resources for ERP implementation. This is shown in the figure 4.8
4.5.2 Resources available

With multiple responses allowed, majority (95.6%) felt that their organization provided financial resources, 88.9% cited provision of qualified personnel, 71.1% reported the provision of office spaces, 60% cited that machinery were provided, while 55.6% reported availability of clean work environment. The finding are shown in the table 4.10

### Table 4.10 Type of resources

<table>
<thead>
<tr>
<th>Type of resources</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacious offices</td>
<td>32</td>
<td>3.00</td>
<td>1.20</td>
<td>71.1</td>
</tr>
<tr>
<td>Clean work environment</td>
<td>25</td>
<td>3.45</td>
<td>0.89</td>
<td>55.6</td>
</tr>
<tr>
<td>Financial needs</td>
<td>43</td>
<td>4.51</td>
<td>0.49</td>
<td>95.6</td>
</tr>
<tr>
<td>Machinery</td>
<td>27</td>
<td>4.00</td>
<td>1.05</td>
<td>60</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>40</td>
<td>4.60</td>
<td>0.99</td>
<td>88.9</td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)
4.5.3. Challenges faced by organization in resource allocation

From the finding, 37.8% reported the high cost of doing business as the major challenge facing organizations in allocation of resources, 26.7% cited limited resources as a major challenge facing resources allocation, 22.2% cited rapid changes in technology and 13.3% reported resource wastage.

Table 4.11 Challenges facing resource allocation

<table>
<thead>
<tr>
<th>Challenges facing resource allocation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate resources</td>
<td>12</td>
<td>26.7</td>
</tr>
<tr>
<td>Resource wastage</td>
<td>6</td>
<td>13.3</td>
</tr>
<tr>
<td>High cost of doing business</td>
<td>17</td>
<td>37.8</td>
</tr>
<tr>
<td>Rapid change in technology</td>
<td>10</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>45</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.6 Organization culture

Majority (44%) of the respondents perceived their organizations as adopting customer oriented culture, 33% reported adopting market orientation culture, 20% cited profit orientation culture and 3% reported employee oriented culture. The findings are illustrated in the figure 4.9
4.6.1. Reasons For ERP Adoption

Majority (53.3%) of the respondents reported that poor data storage was the major reason for implementing ERP system, 33.3% reported slow services delivery to customers and 13.4% cited high running costs as the major reason for ERP adoption in their organization.

Table 4.12 Reasons for ERP adoption

<table>
<thead>
<tr>
<th>Reasons for ERP</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor data storage</td>
<td>24</td>
<td>2.88</td>
<td>0.15</td>
<td>53.3</td>
</tr>
<tr>
<td>Slow services to customer</td>
<td>15</td>
<td>2.79</td>
<td>1.09</td>
<td>33.3</td>
</tr>
<tr>
<td>High running costs</td>
<td>6</td>
<td>2.11</td>
<td>1.00</td>
<td>13.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>100</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)
4.6.2. Effects Of ERP On Organization Performance

The finding shows that most (35.6%) of the respondents said ERP has regulate production line to ensure constant supply of products, 28.9% said it has regulate inventory database to ensure raw material level are checked all the time, 13.3% cited that ERP has helped in tracking customer contacts, 11.4% said that it has helped in the provision of timely price quote, 6.7% said has helped in configuring quantity discounts while 4.4% stated that it has helped in tracking accounts records in the organization.

Table 4.13 Effects of ERP on organization performance

<table>
<thead>
<tr>
<th>Effects of ERP on Organization</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking customer contacts</td>
<td>6</td>
<td>2.55</td>
<td>0.14</td>
<td>13.3</td>
</tr>
<tr>
<td>Provision of timely price quote</td>
<td>5</td>
<td>3.45</td>
<td>0.84</td>
<td>11.4</td>
</tr>
<tr>
<td>configures quantity discounts</td>
<td>3</td>
<td>2.71</td>
<td>0.11</td>
<td>6.7</td>
</tr>
<tr>
<td>Regulate inventory database</td>
<td>13</td>
<td>5.01</td>
<td>1.05</td>
<td>28.9</td>
</tr>
<tr>
<td>Regulate production line</td>
<td>16</td>
<td>5.42</td>
<td>0.78</td>
<td>35.6</td>
</tr>
<tr>
<td>Tracking accounts records</td>
<td>2</td>
<td>4.88</td>
<td>0.05</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td><strong>4.88</strong></td>
<td><strong>0.05</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

4.7. Inferential statistics on challenges facing ERP implementation in Dairy industry

The study used inferential statistics in trying to reach conclusions that extend beyond the immediate data alone. Inferential statistics was used to infer from the sample data what the population might think or to make judgments of the probability that an observed difference between groups is a dependable one or one that might have happened by chance in this study. Correlation analysis was
used to find the relationship between two or more sets of variables. It also tells the direction as well as how much relationship exist between these variables. In this study we used Pearson’s coefficient of correlation which is one of the most popular methods to measure the relationship between variables. The value of the correlation lies between “-1” to “+1”. The positive value of correlation shows relationship; only the direction that differ.

The table given below shows the correlation values of different variables. The first variable employee knowledge and skills in relation to the dependent variable ERP implementation has the coefficient of correlation of “0.818 *” which shows a strong positive relationship between the two variables. It means that the better the knowledge and skills are provided to employees the better the ERP implementation process. Similarly, the second independent variable of organization resources also has a positive correlation of “0.870” with the ERP implementation. Stakeholder involvement also has a positive relationship with the ERP implementation with the value of 0.414. Organization Culture has a positive relationship with implementation of ERP with the value of 0.662. All the independent variables used in our study have a positive relationship with dependent variable which shows that they significantly affect positively the dependent variable.
### Table 4.14: Correlation of variables

<table>
<thead>
<tr>
<th>Variable Title</th>
<th>Implementation of ERP</th>
<th>Employee knowledge and skills</th>
<th>Organization resources</th>
<th>Stakeholders involvement</th>
<th>Organization culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of ERP</td>
<td>Pearson correlation</td>
<td>1.00</td>
<td>.818 *</td>
<td>.870 *</td>
<td>.414</td>
</tr>
<tr>
<td></td>
<td>Sig.(2 tailed)</td>
<td>.000</td>
<td>.020</td>
<td>.016</td>
<td>.004</td>
</tr>
<tr>
<td>Employee knowledge and skills</td>
<td>Pearson correlation</td>
<td>.817</td>
<td>1.00</td>
<td>.467</td>
<td>.651*</td>
</tr>
<tr>
<td></td>
<td>Sig.(2 tailed)</td>
<td>.004</td>
<td>.058</td>
<td>.062</td>
<td>.000</td>
</tr>
<tr>
<td>Organization resources</td>
<td></td>
<td>.870 *</td>
<td>1.00</td>
<td>.581 *</td>
<td>.121</td>
</tr>
<tr>
<td></td>
<td>Sig.(2 tailed)</td>
<td>.002</td>
<td>.003</td>
<td>.001</td>
<td>.001</td>
</tr>
<tr>
<td>Stakeholders involvement</td>
<td></td>
<td>.414</td>
<td>0.32</td>
<td>.113</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Sig.(2 tailed)</td>
<td>.000</td>
<td>.006</td>
<td>.005</td>
<td>.016</td>
</tr>
<tr>
<td>Organization culture</td>
<td></td>
<td>.662</td>
<td>.514</td>
<td>.121</td>
<td>.317</td>
</tr>
<tr>
<td></td>
<td>Sig. (2 tailed)</td>
<td>.000</td>
<td>.005</td>
<td>.001</td>
<td>.000</td>
</tr>
</tbody>
</table>

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

**Source (Field data, 2014)**

### 4.7.1. Regression Analysis

The researcher conducted regression analysis to determine the effects of employee knowledge and skills, organization resources, stakeholders’ involvement and the organization culture on implementation of ERP in daily sector. The regression equation was: 

\[ Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \epsilon \]
Whereby $\alpha_0$ is the regression constant, $\alpha_1 ... \alpha_4$ are regression coefficients,

- $Y =$ implementation of ERP in the daily sector
- $X_1 =$ Employee knowledge and skills
- $X_2 =$ Organization resources
- $X_3 =$ Stakeholders involvement
- $X_4 =$ Organization culture

Where as $\epsilon =$ Error term

**Table 4.15: Goodness of Fit Model**

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.721$^a$</td>
<td>.612</td>
<td>.600</td>
<td>.331</td>
</tr>
</tbody>
</table>

*Source: (Field data, 2014)*

The findings show a correlation value of 0.721 as this illustrates a linear relationship between the dependence and independent variables. An R-square value of 0.612 was established and adjusted to 0.600. This coefficient of determination shows that employee knowledge and skills, organization resource, stakeholders’ involvement and organization culture affect implementation of ERP at a rate of 61.2% the remaining 38.8% of variations are brought about by factors not captured in the objectives.

Analysis of Variance (ANOVA) was further carried out to test the significance of the regression model in relation to the differences in means of the dependent and independent variables.
Table 4.16: Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5.44</td>
<td>2.71</td>
<td>32.043</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>3.32</td>
<td>0.235</td>
<td>12.003</td>
<td>.002</td>
</tr>
<tr>
<td>Total</td>
<td>8.76</td>
<td>2.945</td>
<td>44.046</td>
<td></td>
</tr>
</tbody>
</table>

The findings ANOVA test produced an f-value of 32.043 which was significant at p<0.001. This illustrates that the regression model is significant at 95% confidence level. That is, has less than 1% probability of misrepresentation.

Table 4.17: Regression Coefficients

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.302</td>
<td>.460</td>
</tr>
<tr>
<td>Employee knowledge and skills</td>
<td>0.223</td>
<td>.058</td>
</tr>
<tr>
<td>Organization resources</td>
<td>0.432</td>
<td>.123</td>
</tr>
<tr>
<td>Stakeholders involvement</td>
<td>0.042</td>
<td>.077</td>
</tr>
<tr>
<td>Organization culture</td>
<td>0.334</td>
<td>.033</td>
</tr>
</tbody>
</table>

Source: (Field data, 2014)

The regression equation therefore becomes:

ERP implementation = 0.332 + 0.815X₁ + 0.712X₂ + 0.553X₃ + 0.479X₄ + e

p<0.001
From the above regression model, when aggregate independent variables assume null value; ERP implementation would be equal to 0.332. An improvement in employee knowledge and skills would yield a 0.815 increase in an ERP implementation. An increase in organization resources would result to a 0.712 increase in an ERP implementation; An increase in stakeholders involvement would yield 0.553 increase in an ERP implementation. While an increase in organization culture would also have a 0.479 increase in an ERP implementation.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of a summary of the findings of the research, conclusions relating to the research objectives, suggestions and recommendations on the challenges facing implementation of Enterprise Resource Planning in the dairy industry in Kenya.

5.2 Summary of the findings

In regard to the demographic information about the respondents, the findings indicated that Majority of the respondents were men, most of the respondents were between 31 years and 50 years and had worked in their organization for between 4 to 6 years and majority of the respondents were working as programs coordinators.

In regard to the employee knowledge and skills, majority of the respondents had diploma and university level of education, therefore they reported that were able to utilize the ERP model in their organizations. Majority agreed that some preparation were done before implementing the modals with citing organization need assessment as the main preparation practice done before ERP implementation.

The study established that concerning the stakeholders involvement majority of the employees reported that majority of the stakeholders in the organization were involved in the ERP implementation. Majority were involved in offering technical expertise. Majority of the respondents were satisfied with ERP implementation process while most respondents said stakeholder
involvement help in system modification in the last one year.

On organization resources majority of the respondents reported that their organization devoted resources to the Implementation process. The main resources provided were financial related. The major challenge facing resource allocation was the high cost of doing business therefore limiting the resources available for ERP implementation.

Majority of the respondents reported that their organization had adopted customer oriented culture, majority cited poor data storage as a main organization cultural aspect the ERP implementation was meant to address. Majority reported that ERP has helped in regulating production line and inventory database therefore improving the organization culture in terms of efficiency.

5.3 Conclusion

The first objective was to ascertain the influence of employee knowledge and skills in relation to the dependent variable ERP implementation. The findings show a strong positive relationship between the two variables with the coefficient of correlation of 0.818. This means that the better the knowledge and skills are provided to employees the better the ERP implementation process.

Similarly, there is a positive correlation of 0.870 between independent variable of organization resources and the ERP implementation. This means that as the resources allocated to implementation increase the more successful the process become. Although there a weak relationship(0.414) as the coefficient of correlation, Stakeholder involvement also has a positive relationship with the ERP implementation.
Organization Culture has a positive relationship with implementation of ERP with the value of .662. This implies that organization way of doing things influences the performance of Enterprise Resource Planning. All the independent variables used in our study have a positive relationship with dependent variable which shows that they significantly affect positively the dependent variable.

5.4 Recommendations

On the basis of the findings of the study the following recommendations can be made;

- The organization management must strive to improve employees’ knowledge and skills which can be used in implementation of policy implementation. This can be improved through training and proper orientation for new employees. This will ensure that all employees are conversant with the ERP modal used in the respective organizations.

- The strategy implementation processes should involve all the stakeholders, this include the shareholders, workers and ender user as they benefit from the ERP modal in different ways. The involvement can enhance adoptability and acceptance of the strategy as a way of increasing the organization performance.

- The shareholders must ensure that enough resources are allocated to the implementation process. Resources in terms of human and financial resources are crucial in strategic planning and implementation processes.

- The daily sector management needs to align the Organization culture with the ERP modal. The ERP modal are meant to enhance the organization way of doing business and therefore the more proactive the culture is the better the ERP utilization.
5.5. Suggestions for further research

Other areas which might be explored in future are;

- Effects of ERP adoption to organization culture in the dairy sector.

- Effects of ERP utilization on employee job satisfaction in the dairy sector.
REFERENCES


APPENDIX

APPENDIX I. LETTER TO RESPONDENTS

KENYATTA UNIVERSITY
SCHOOL OF BUSINESS
DOCTORAL & MBA COORDINATION OFFICE
INTERNAL MEMO

P.O Box 43844
NAIROBI
KENYA
Tel: 8710901-19 Ext. 57500
18th February, 2014

TO WHOM IT MAY CONCERN

REF: KU/MBA-PHD/RECOMM.KETTERS/VOL IV (9)


This is to confirm that the above student is a Master of Business Administration MBA (Strategic Management) student in the School of Business, Kenyatta University.

She is through with course work and has successfully defended her MBA Project proposal (An investigation into the challenges facing implementation of enterprise resource planning in the Dairy Industry in Kenya. A case of selected Dairy Firms). I confirm that she has done all the corrections that were pointed out by the examiners during the defense and she is now embarking on data collection.

Any assistance accorded to her will be highly appreciated by this office.

Thank you.

ISAAC P. LOKERIS
FOR: DOCTORAL AND MBA PROGRAMME COORDINATOR

IL/IK
APPENDIX II. QUESTIONNAIRE

Instructions: Please tick appropriately

Please fill in the questionnaire provided by ticking appropriately or filling in as directed.

SECTION A: Demographic Information

1. What is your gender?
   a. Male
   b. Female

2. Branch/department/section ______________________________________________________

3. Position held in the organization
   a. Chief Manager (   ) senior manager (   ) Program Coordinator (   )

4. What is your age bracket?
   a. 20 - 30 years
   b. 31 – 40 years
   c. 41 – 50 years
   d. Above 50 years

5. What is your highest level of education attained so far?
   a. Primary level
   b. Tertiary College (Diploma)
   c. University (Graduate)
   d. University (Post-graduate)
   e. Other (specify) ____________________________

6. How long have your organization existed? (state in years)________________________
7. How many years have you served in the current department______________________

**Employees’ Knowledge**

1. Are all users able to use ERP effectively? Yes….. No……

2. Before the ERP system implementation was the necessary preparation done? Yes….. No…..

If yes which arrangements were done……………………

3 The following are likely scale statements that relate to factors affecting implementation of ERP in dairy industry. Using scale 1-5 where 1- strongly disagree and 5- strongly agree indicate the extent to which you agree or disagree with it.

**ID- indifferent, SD- strongly disagrees, D- disagrees, A- agrees and SA- Strongly agrees.**

<table>
<thead>
<tr>
<th>Skills and knowledge</th>
<th>SD</th>
<th>D</th>
<th>ID</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers have adequate management training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The training has assisted in the running of ERP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management skills affects the level of performance of ERP.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inexperience of managers affects performance of ERP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is competent team in ERP management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market efficiency is available with ERP use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdated and inadequate infrastructures affect the level of performance of ERP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ineffective storage methods affect the Implementation of ERP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate marketing information has impacted on the overall performance of ERP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stakeholders’ involvement

1. What are the major needs targeted by the ERP implementation in your organization
   a. Common needs within the community
   b. Individual employee needs
   c. Organizational needs

2. In your organization who determines the policies to be carried out?
   (i) Shareholders
   (ii) Community leaders
   (iii) Organization management
   (iv) Employees
   (v) Vendors

3. To what extent are you satisfied with the choice of ERP modal you are carrying out?
   (Tick as appropriate using the key below)
   5 = Very great extent  4 = Great extent  3 = Moderate extent
   2 = Minimal extent  1 = Not at all

4. How would you describe your involvement in your institution’s ERP implementation?
   a) I was the executive sponsor / co-sponsor for the project
   b) I was the project leader
   c) I was part of the management team
   d) I served as a functional or technical specialist
   e) I was partially involved
   f) I was not directly involved
5. Are the end users fully aware of the benefits of the ERP? Yes…….. No……

6. What are the end users contributions on the ERP implementation?
   System modification……..ERP Improvement…….. Field training………………

**Organization resources**

1. Does your company provide facilities and resources for system implementation?
   Yes…….. No……..

2. Which resources are provided by the company?
   a) Spacious offices…….. b) Clean environment…….. c) Financial aids……..
   d) Work machines…….. e) Qualified personnel……..

3. How do resources influence system implementation?
   a) By providing comfortable working environment
   b) By providing opportunities for further growth.
   c) By making system components available.

4. In your own opinion what challenges are faced by using company in resources allocation?
   ............................................................................................................................
   ............................................................................................................................

**Organization culture**

1. How can you describe the organization culture in your organization?
   Customer oriented
   Profit oriented
   Growth oriented……..
2. Which challenges were experienced before ERP system was implemented
   a) Poor data storage
   b) Slow customer services
   c) High running costs
   d) Manual recording

3. What are the best practices, associated with the ERP module which you have discovered?
   a) Tracks customer contacts
   b) Provides the customer with a timely price quote
   c) Configures quantity discounts
   d) Checks the inventory database to see if items can be delivered on time
   e) Updates the production planning database to avoid any shortfalls
   f) Updates accounting records
   g) Provides an interface with CRM (customer relationship management)
APPENDIX III: DAIRY COOPERATIVES / FIRMS IN KENYA

1. Farmers Milk Processors Ltd
2. Bio Food Products Ltd
3. Spin Knit Dairy Ltd
4. Brookside Dairy Ltd
5. Githunguri D. F. C.
6. Limuru Milk Processors
7. Kilifi Plantation Ltd Dairy farms
8. Sunpower Products
9. Doinyo Lessos Creameries Ltd
10. Eldoville Farm Ltd
11. Afrodane Industries Ltd
12. New K.C.C.
13. Greenlands Dairy Ltd
14. Adarsh Developers Ltd
15. Happy Cow Ltd
16. Lari Dairy Alliance
17. Kabianga Dairy Ltd
18. Meru Central Dairy Cooperative
19. Kinangop Dairy
20. Kinyaga Food Processing Plant
21. Pamside Dairy Ltd
22. Tambul Dairies
23. Gikambura Dairies
24. Sigona dairy
25. Muguga dairy
26. Gatundu dairy
27. Limuru dairy
28. Kabete dairy farmer cooperative
29. Ndumberi dairy farmers cooperative
30. Kiambaa dairy farmers cooperative
31. Kiganjo Dairy
32. Othaya Dairy
33. Ihururu Dairy Farmers
34. mukurweini wakulima dairy
35. Tetu Dairy cooperative society
36. Ngkurani Farmers
37. Gakindu Dairy
38. New Nyala Dairy
39. Mariakani Dairy Cooperative
40. Mathira Dairy Farmers Co-Operative Society
41. Kokiche dairy cooling
42. Nabintanga Dairy Farmers Co-operative Society
43. Meeboot Dairy Farmers Cooperative
44. Muki Dairy Cooperative Society
<table>
<thead>
<tr>
<th>No.</th>
<th>Dairy Company Name</th>
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<tbody>
<tr>
<td>45</td>
<td>Kenafric Diaries Manufacturers Ltd</td>
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<tr>
<td>46</td>
<td>Bahati dairy-farmers</td>
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<tr>
<td>47</td>
<td>Tinderet dairy</td>
</tr>
<tr>
<td>48</td>
<td>Kapcheno dairy company</td>
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<td>49</td>
<td>Moiben dairies Ltd.</td>
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<tr>
<td>50</td>
<td>Gatimu Dairy</td>
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<tr>
<td>51</td>
<td>Buzeki Dairies</td>
</tr>
<tr>
<td>52</td>
<td>Kahuro dairy firm</td>
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<tr>
<td>53</td>
<td>Ichichi Dairy Farmers SHG</td>
</tr>
<tr>
<td>54</td>
<td>Wanguru Dairy Goat-Farmers</td>
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<tr>
<td>55</td>
<td>Kinangop Dairy Ltd.</td>
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<tr>
<td>56</td>
<td>Witeithie Dairy Farmers SHG</td>
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<tr>
<td>57</td>
<td>Kirere Dairy Services</td>
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<td>58</td>
<td>Kikama Dairy Farmers</td>
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<td>59</td>
<td>Mugi Elite Dairy</td>
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<td>60</td>
<td>Kagundu-ini-farmers</td>
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<td>Tulaga dairy farmers cooperative society</td>
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<td>Kirinyaga Dairy Farmers</td>
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<td>Chemosite Dairy</td>
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<td>Gichungu Dairy</td>
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<td>Gikara Dairy Farmers Cooperative and investment Ltd</td>
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<td>Gatamaiyu dairy farmers cooperative</td>
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<td>Kamahia Farmers Cooperative Society</td>
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<td>Njoro dairy</td>
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<td>70</td>
<td>Muki Dairy Co-operative</td>
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<td>Kiriita FCS</td>
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<td>72</td>
<td>Nyambini FCS</td>
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<td>73</td>
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<td>74</td>
<td>Kiplombe Farmers Co-operative Society Ltd</td>
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<td>Chebusok Dairy Co-operative Societies Association Ltd</td>
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<td>76</td>
<td>Mogotio dairy</td>
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<td>77</td>
<td>Suka Farmers Co-Operative Society Ltd</td>
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<td>78</td>
<td>Sabatia dairy farm</td>
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<td>79</td>
<td>Molo dairy cooperative society</td>
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<td>Mutungati FCS</td>
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<td>82</td>
<td>Tuungane farmers</td>
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<td>83</td>
<td>Marmanet FCS</td>
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<td>84</td>
<td>Kinamba dairy farm</td>
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<td>85</td>
<td>Farmers Cooperative Society dairy plant</td>
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<td>86</td>
<td>Wamuini milk bar</td>
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<td>87</td>
<td>Tarakwa dairy cooperative society</td>
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<td>88</td>
<td>Meeboot dairy farmers cooperative society</td>
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<tr>
<td>89</td>
<td>Naitiri dairy cooperative society</td>
</tr>
<tr>
<td>90</td>
<td>Koitogos dynamic dairy cooperative society</td>
</tr>
</tbody>
</table>
91. Cherangany dairy ltd.
92. Moi’ Bridge dairy
93. Marakwet dairy farmers
94. Ruskebei Farmers Co-operative Society Ltd
95. Umoja Sotik dairy
96. Kabianga dairy ltd.
97. Sotik Dairy Farmers
98. Ketengeret FCS
99. Sosiot FCS
100. Mutarakwa farmers
101. Longisa FCS
102. Chemosu Dairies
103. Gelegele FCS
104. Mosop FCS
105. Londiani FCS
106. Cheborgei FCS
107. Kikuyu dairy
108. Nderi dairy
109. Ruskebei dairy cooperative society
110. Mosop/Ainamoi Dairy Society
111. Chepkalwal Ndanai Dairy Co-Operative Society
112. Cheplanget Dairy Co-Operative Society
113. Kiwa
114. Gelegele Dairy Co-Operative Society
115. Itembe Dairy Co-Operative Society
116. Kaplemirai Dairy Co-Operative Society
117. Kapsonoi Dairy Co-Operative Society
118. Litein Kipagenge Dairy Co-Operative Society
119. Manaret Dairy Co-Operative Society
120. Ndara weta Dairy Co-Operative Society
121. Saruchat Dairy Co-Operative Society
122. Kosiach Tany Cooperative Society
123. Mumberes
124. New Ngorika
125. Kiptoim
126. Molele
127. Torongo
128. Sigoro
129. Tukame
130. Boiman
131. Ngarua
132. Wanjohi FCS
133. Mi harati FCS
134. Gi kara FCS
135. Kitiri DFC
136. New Murungaru/Olaragwai
137. Karati FCS
138. Tongaren
139. Taito
140. Surungai
141. Seum
142. Mbd Sacco
143. New-Tetu Federation
144. Kirichu Dairy Coop
145. Ihururu Dairy Coop
146. Mik Ltd
147. Ainabkoi
148. Gakundu
149. Timboroa
150. Olkalau

Source (USAID Kenya Dairy Sector Competitiveness Program 2011)