# A STUDY OF THE LINKAGE OF CRITICAL SUCCESS FACTORS AND KNOWLEDGE MANAGEMENT SYSTEMS AT OLIVADO KENYA (EPZ) LTD

 $\mathbf{BY}$ 

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A management Research Project Report Submitted in Partial
Fulfillment for the Award of Master of Business Administration (MBA)

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# Declaration

This research project is my original work and has not been presented for a degree in any other University. No part of this dissertation may be reproduced without the prior permission of the author or NAIROBI UNIVERSITY

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# Dedication

I dedicate this project to my late parents especially my mum who taught me to be zealous in life and to my brothers and sisters who encouraged me to further my education. This project is also dedicated to my lovely children; Denis: being in the University together with you was fun, Marion: you really encouraged me and did not seem to mind my absence at home in the evenings, Charles: you drew a lot of beautiful pictures on my books

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Thanks to God Almighty because from the fullness of His grace I have received one blessing after another.

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# ABBREVIATIONS AND ACCRONYMS

APQC American Productivity & Quality Centre

CEO Chief Executive Officer

CKO Chief Knowledge officer

CSF Critical Success factor

EPZ Export Processing Zone

K audit Knowledge assets audit

K map Knowledge map development

KM Knowledge management

KMS Knowledge Management System

LTD Limited

# LIST OF FIGURES

Figure 2.1: Conceptual Framework

#### **ABSTRACT**

Knowledge management is a key differentiator in the highly competitive business world of today. Organizations have knowledge distributed across people, technologies, and organizational practices. They need to manage effectively the knowledge they have and also acquire new knowledge that will enable them to stay competitive in the market place. Little wonder then, knowledge management (KM) is fast emerging as a core strategy that organizations worldwide are adopting to manage and leverage organizational knowledge for sustainable business advantage.

However, the implementation of KM initiatives cannot be easily accomplished in an organization and the high risk of failure is well documented. The effective implementation of KM is controlled by certain critical success factors. Many studies have focused on identifying KM critical success factors which are too general and do not address the preliminary factors needed to implement KM. In addition, while the success factors are well grounded theoretically, very few attempts have been made to assess their level of implementation.

This study was carried out to assess the readiness of Olivado Kenya (EPZ) Ltd in KM implementation by examining the extent to which each of the five selected critical success factors had been implemented and their linkage to organizational performance. Four of the selected critical success factors were found to have a positive link to the implementation of knowledge management system which subsequently improved the firm's position.

#### **CHAPTER ONE**

#### INTRODUCTION

# 1.1 Background of the study

Knowledge management is currently receiving considerable attention from both academics and practitioners (Nonaka and Takeuchi, 2003; Davenport and Prusak, 2000; Hall and Paradice, 2005). Knowledge management activities aim to effectively apply an organization's knowledge to create new knowledge to achieve and maintain competitive advantage. Trochim (2004) argued that early in the industrial era, organizations improved their efficiency, effectiveness and hence, their competitive edge by automating manual labor and reducing redundancy. However, now, in the age of the knowledge worker, many organizations have gone through massive restructuring to eliminate redundant workers and jobs. In today's business environment, organizations are facing increasing global competition and a more sophisticated consumer. To stay competitive, companies must still be innovative in reducing their costs and expanding their markets.

Many unsuccessful knowledge management cases have been observed where rectifying or altering the system was difficult, time - consuming and expensive and failure resulted, in some cases, in the deterioration of the implementation of knowledge management (Davenport and Prusak, 1998). Organizations' different cultures and different business goals make it impossible that one knowledge management system or tool would suit every organization and developing methods and strategies for implementing knowledge management needs the integration of several issues such as people, culture, and technology. The effective implementation of KM is controlled by certain critical success factors which are well documented in literature. A selected number of these critical success factors were examined in this study.

# 1.1.1 Knowledge Management

Knowledge management (KM) is an integrated, systematic approach to identify, manage, and share all of the department's information assets, including databases, documents, policies and procedures, as well as previously unarticulated expertise and experience resident in individual officers (Jones, 2003). KM is also known as a systematic, goal-oriented application of measures to steer and control the tangible and intangible knowledge assets of organizations, with the aim of using existing knowledge inside and outside of these organizations to enable the creation of new knowledge, and generate value, innovation and improvement (Wunram, 2000). KM creates a new working environment where knowledge and experience can easily be shared and also enables information and knowledge to emerge and flow to the right people at the right time so they can act more efficiently and effectively. This study will address KM as being concerned with the identification, acquisition, creation, storage, distribution, and use of both information and knowledge.

There are at least three reasons for using knowledge management methodology. First, company knowledge assets are as important as their physical or financial assets. Knowledge assets may be defined as organizational knowledge regarding how to efficiently and effectively perform business processes and create new products and services that enables the business to create value. Being able to tap into the collective experience of employees will help firms improve their competition advantage. Second, companies are just becoming aware of the possible loss of valuable knowledge when baby boomers start leaving the workforce. Lastly, KM systems have proven themselves to reduce redundancy and improve efficiency in organizations.

#### 1.1.2 Critical Success Factors

The development of the KM field has led to the identification of various critical success factors (CSFs) for its adoption. Factors underpinning the success of KM can be identified from authors who have researched and written directly on this subject. CSFs can be defined as "areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization" (Rockart, 1979). Rockart viewed them as those critical areas of managerial planning and action that must be practiced in order to achieve effectiveness. In terms of KM, they can be viewed as those activities and practices that should be addressed in order to ensure its successful implementation. These practices would either need to be nurtured if they already existed or be developed if they were still not in place. Based on the above definition, CSFs in this study are treated as those internal factors which are controllable by an organization. External factors such as environmental influences are not taken into account since organizations have little control over them when implementing KM. Some of the pertinent studies on CSFs for KM will now be reviewed and their possible weaknesses highlighted.

One of the earliest sets of CSFs for practicing KM was reported by Skyrme and Amidon (1997). They suggested five key success factors based on lessons drawn from an international study of practices and experiences of leading companies in KM, which are discussed in the literature review section. Some critical factors can be extracted from the work of those who have explored KM in general or have addressed a particular factor in detail.

An in depth literature review indicated that numerous factors had been identified as important for accomplishing KM. Although different researchers have used different terminologies to indicate these factors, they can be represented by generic themes. In addition, they have also been mentioned in the literature with a mixed extent of emphasis and coverage. Based on the review, the authors hypothesized and proposed five CSFs to form the basis for KM adoption in the current study.

A broad range of factors that can influence the success of KM implementation has been mentioned in the literature. For example, much has been stated about culture, information technology and leadership as important considerations for its accomplishment. However, no systematic work exists on characterizing a collective set of CSFs for implementing KM. An appropriate set of CSFs which are relevant for the area of study will help practitioners to keep in mind the important issues that should be dealt with when designing and implementing a KM initiative.

# 1.1.3 Business strategy

In order for KM to support business strategy, the organizations must attempt to formulate KM objectives in the planning stage so that everybody is well aware of the objectives to be achieved. Organizational vision and mission must be related to KM as effective management always emanates from a top level vision or from a strategic review or planning process.

Top managers should ensure the consistency between the organization's mission and knowledge strategy by clearly defining knowledge goals that are connected with functional strategies (Lin and Tseng, 2005).

There should be a comprehensive plan that can holistically integrate the knowledge capability of all departments to create value for the organization. Therefore, strategic plans and operational processes must be aligned with the vision related to KM. Without a suitable and clear goal and a blueprint of what added value can be fostered by KM, the organization may not be able to launch its KM program.

There may still be discrepancies because employees may not fully understand what KM is or are afraid that their personal value might be negatively affected after sharing their knowledge. Hence, employees must be made aware of the KM-related objectives so as to get full cooperation and good teamwork towards the achievement of business objectives. Managers at all levels and frontline employees must also share their responsibility (Lin and Tseng, 2005). However, within an organization, there may be gaps between perceptions of top managers and that of employees due to the difference in positions, role, and professional knowledge (Nonaka, 1994; Paiva, 2003). Therefore, to match the perceptions of all employees in different positions, the KM goals and plans that are committed by all levels of employees become a critical issue in implementation that cannot be overlooked. The top management and human resource department must play an important role to educate and disseminate the information to the employees on KM. There must be a belief embedded in each and every employee that KM is an important way to survive in business.

# 1.1.4 Organizational structure

As the organizations are competing in a very competitive economy where changes occur every day, they must adopt a more flexible organizational structure if they want their KM practices to be successful. A flexible structure would help the firms to adapt to the rapid changes in order to remain competitive and stay ahead of their competitors.

For KM to work, the structure should not interfere with the flow of information and ideas across departments. A flexible structure would allow the formation of ad hoc crossfunctional teams in which experts from different departments can be gathered to ease the flow of ideas across departments; or provide venues for employees to communicate informally. In fact, the organizations can consider adopting hybrid structure which combines the process, matrix, and customer structures. While process and matrix structures help an organization to capture the internal competencies, customer structure can help to capture external competencies. If one of the most important tasks in successful KM is to create self-organizing and cross-functional teams to seize the right knowledge and present it in an easily accessible format (Greengard, 1998; Nonaka, 1994), a flexible structure will help to support and facilitate the learning process within the organization to achieve organizational goals in the most efficient way (Heijst and Kruizinga, 1998).

# 1.1.5 Knowledge team

Since, a well staff team is crucial for successful KM implementation (Chong and Choi, 2005; Chong, 2006a, b; Civi, 2000), the organizations must realize that a Knowledge team is needed to storm the KM program, norm the KM program, perform the KM activities, and reform the KM program (Soliman and Spooner, 2000). To enhance the level of KM implementation, the organizations should ensure a competitive Knowledge team is formed in which the members come from different functional departments. The Knowledge team should fully understand the strategic direction of the program, the background of the organization, the long- and short-term objectives, and the financial limitations to accurately identify the knowledge required by the organization.

The team should be led by a senior management member or a chief knowledge officer (CKO) in charting the path and driving the processes of KM implementation. The team leader or CKO can play an important role in designing, implementing, and overseeing a firm's knowledge infrastructure; measuring and managing the value of knowledge; and advocating knowledge discovery and use (Jones *et al.*, 2003). The critical task of CKO, among all, is to identify the core knowledge which is necessary to achieve and maintain competitive advantage. He/she is the one who needs to thoroughly understand the internal and external environment for KM for enacting proper strategies for the entire organization to successfully implement a KM program (Lin and Tseng, 2005). By having a well staff K team led by a CKO, the organizations are assured of moving in the right direction towards achieving their KM goals.

# 1.1.6 Knowledge audit

Knowledge audit is another important preliminary KM success factor which has received little attention from organizations. The main function of Knowledge audit is to identify any duplication, gaps, and overlaps in organization knowledge bases (Nesbitt, 2002). Though important, many organizations may leave it out due to resource constraints (Jun and Chai, 2003) where a K audit process would take up a long time to complete and this process may need experts to measure and audit its knowledge assets in the organizations.

Knowledge audit should be used to keep track on the way people and technology mix to make sure the right information gets to the right people in the right form at the right time (Perseus Publishing, 2002). Knowledge audit will help the organizations to review and discover information they currently have but do not utilize; discover information they need but do not have; discover the gap between what information they have and what is needed; and discover how information is delivered (Call, 2005; Harvey, 2003). Human resources are then needed to coordinate, initiate, and manage the implementation process. Training could be provided to ensure the Knowledge audit team is capable of carrying out the process. Time is another important consideration as the organizations have to free up time for the team to perform Knowledge audit process. This process should be continuous so that the organizations are well aware of what knowledge assets they have and know their strengths and weaknesses to identify their competitiveness in the market place.

# 1.1.7 Knowledge map

Knowledge map is critical to KM implementation as it helps to identify the position of an organization relative to its competitors. The resulting outcome of a Knowledge map process is represented by what the organization knows and what it should know in order to support the competitive position that it has adopted (Tiwana, 2000).

A proper Knowledge map will help the organizations in identifying areas of knowledge gaps and direct the organizations to think of ways of how to bridge the gaps in order to improve their competitive positions, either by developing new knowledge, by buying knowledge, by improving existing knowledge, or by getting rid of knowledge that is out of date or has become irrelevant (Beijerse, 1999).

Organizations must continuously map and evaluate their current knowledge and identify new knowledge to stay competitive. In addition, to documenting the existing knowledge in their employees' heads, organizations must also consider going beyond the company to tap knowledge from their external environment, their customers, and employees (Chong and Choi, 2005; PriceWaterhouse Coopers, 1999).

# 1.1.8 Olivado Kenya (EPZ) Ltd

Olivado Kenya (EPZ) Limited (established 2007, Kenya) is a subsidiary of Olivado International Limited (established 2002, New Zealand). Olivado is a small New Zealand company that developed the process for the world's first cold pressed extra virgin avocado oil (www.olivado.com).

The major impediment to the company's growth was a good supply of avocado, with the New Zealand market not producing sufficient quantities for the international market Olivado has developed. Olivado Kenya produces organic and social fair-trade oil. Both organic and Fair Trade practices call for contractual working with small-scale farmers. These farmers must meet certain minimum criteria to be in the program and their production methods must be continuously monitored to ensure adherence to the laid down standards.

The organic and social fair trade certifiers inspect the farmers once every year. Olivado believes that it can develop a smallholding production system that can produce 8,000 tonnes of avocados (approximately 1,100,000 litres of oil) in 3-4 years with about 5,000 small-scale farmers. To be able to handle such a huge production capacity, Olivado realized the need for a knowledge management system more so because this was the first time that such a big number of small farmers were being certified for one operator in Kenya.

#### 1.2 Statement of the Problem

KM is the management of corporate knowledge that can improve a range of organizational performance characteristics by enabling an enterprise to be more "intelligent acting" (Wiig, 2003). It is not a new movement per se, as organizations have been trying to harness their internal processes and resources that have resulted in various movements over the years as total quality management, expert systems, business processes re-engineering, the learning organization, core competencies, and strategy focus.

Good managers in organizations have been using the know-how of people they hired with skills and experience, and processes for effective management on an ad-hoc, casual basis. However, only recently have organizations begun to focus their interest on this aspect in more systematic and a formal manner.

The studies undertaken include the following:- Ackerman (2004) studied six organizations that had implemented knowledge management with a view to understanding the factors that determine effectiveness of the implementation and found that a smaller task-based Knowledge Management System (KMS) was more effective on the sub-organization level because of its narrower expectations; Jennex and Olfman (2004) studied three KM projects to identify design recommendations for building a successful KMS; Additionally, Jennex and Olfman (2003) performed a longitudinal study of KM on one of these organizations and found that new members of an organization do not use the computerized KMS due to a lack of context for understanding the knowledge and the KMS. They found that these users needed pointers to knowledge more than codified knowledge.

Davenport and Demarest, (2004) studied 31 projects in 24 companies. Eighteen projects were determined to be successful, five were considered failures, and eight were too new to be rated. Eight factors were identified that were common in successful KM projects. These factors are: Senior management support; clearly communicated KMS purpose/goals; Linkages to economic performance; multiple channels for knowledge transfer; Motivational incentives for KM users; a knowledge friendly culture; a solid technical and organizational infrastructure; and a standard, flexible knowledge structure.

THINKERSTLY

Ginsberg and Kambil (2003) explored issues in the design and implementation of an effective KMS by building a KMS based on issues identified in the literature and then experimentally implementing the KMS in a field setting. They found knowledge representation, storage, search, retrieval, visualization, and quality control to be key technical issues and incentives to share and use knowledge to be the key organizational issues.

From the academic side, many studies have focused on identifying knowledge management (KM) critical success factors (Chong and Choi, 2005; Davenport and Prusak, 1998; Moffett et al., 2003; Wong, 2005), but they are too general and do not address the preliminary factors needed to implement KM. In addition, while the success factors are well grounded theoretically, very few attempts have been made to assess its level of implementation. Insofar, only three studies have been found to assess the level of KM implementation in organizations (Choi, 2000; Chong, 2006a, b). A preliminary study done by Chong and Yeow (2005) in Malaysian telecommunication industry reported that most of the telecommunication organizations in Malaysia are at the beginning stage of KM implementation. Except for Chong and Yeow (2005), no studies have been conducted so far to investigate the level of KM implementation in this growing yet competitive industry. Therefore, it is interesting to study to what extent these success factors are implemented in this and other industries besides re-confirming the importance of these factors to successful KM implementation.

The current study thus attempts to assess the readiness of Olivado Kenya (EPZ) Ltd in KM implementation by examining the extent to which each of the five CSFs has been implemented and their linkage to organization performance. It is hoped that the results would contribute to better understanding and guide the KM implementation process in various sectors of the economy. This study will seek to answer the question; what are the effects of each of the five preliminary critical success factors; business strategy, organizational structure, knowledge team, knowledge audit and knowledge map, to the implementation of Knowledge Management in Olivado Kenya (EPZ) Ltd?

# 1.3 Research Objective

# 1.3.1 General Objective

The study sought to examine the critical success factors for implementing knowledge management systems at Olivado Kenya (EPZ) Ltd

# 1.3.1 Specific Objectives

The study was guided by the following specific objectives:

- i. To determine the extent to which the five selected CSF had been implemented at Olivado Kenya (EPZ) Ltd.
- ii. To determine how successful the implementation of KMS had been at Olivado Kenya (EPZ) Ltd.
- iii. To determine the linkage between the CSF and KMS at Olivado Kenya (EPZ)
  Ltd

# 1.4 Significance of the Study

It is hoped that the findings of the current study will be beneficial to various stakeholders in various sectors of the economy.

Management of organizations: The study will make managerial contributions for players in all sectors of the economy by presenting a better understanding of the factors that influence effective implementation of Knowledge Management systems and use the information to identify the shortcomings of their implementation strategies. In addition, this study is important because it updates and expands previous survey-based researches on implementation of Knowledge Management systems.

Academic Researchers – The study will contribute to the existing body of knowledge in the area of knowledge management practice and its influence on the performance of organizations as a result of changing environmental conditions. It will also inspire future researchers to carry out further research in the same or related field.

#### CHAPTER TWO

#### LITERATURE REVIEW

# 2.1 Introduction

This chapter presents a review of the literature related to the purpose of the study. The chapter is organized according to the specific objectives in order to ensure relevance to the research problem. The review was undertaken in order to eliminate duplication of what has been done and provide a clear understanding of existing knowledge base in the problem area. The literature review is based on authoritative, recent, and original sources such as journals, books, thesis and dissertations.

# 2.2 Critical success factors of KM implementation

Knowledge Management, KM, is the retention of experience, knowledge, information, and data about events in an organization that are then applied to future events to support decision-making. A knowledge management system, KMS, is the system an organization builds to implement KM by supporting the capture, storage, search, retrieval, and application of knowledge. This includes the management support, processes, and IT applications and components necessary to support these activities. Knowing the critical success factors is useful as it provides researchers and practitioners with the basic requirements for implementing a successful KM initiative and building a successful KMS. KM and KMS success factors are those factors that encourage or help users to use the KMS to effectively perform KM functions, Jennex and Olfman, 2002).

Wiig (1997) coined KM as the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge-related effectiveness and returns from its knowledge assets. It can be seen as a way to improve performance, value, productivity, and competitiveness, a way to capture best practices, a way to increase speed and meet customer needs, and a way to become a more innovative firm (Bassi, 1997; Chadam and Pastuszak, 2005; Chong, 2006a, b; Chong and Lin, 2006; Chong *et al.*, 2006; Fulford and Love, 2004; Koh and Gunasekaran, 2006; Mentzasm, 2004; O'Dell *et al.*, 1998; Ruggles, 1998; Silva, 2002; Sveiby, 2000; Syed-Ikhsan and Rowland, 2004b; Yang, 2004).

Owing to the increasing recognition of the benefits of KM, several studies have attempted to propose a comprehensive list of KM success factors. Wong (2005) defines KM success factors as key activities or practices that should be addressed to ensure the successful implementation of KM. He further adds that these activities or practices would need to be nurtured if they already existed or be developed if they were still not in place. They should be treated as internal environmental factors that are controllable by firms, and not as external environmental forces since organizations would have little control over them when implementing KM. With respect to this, Davenport and Prusak (1998) have identified eight KM success factors; Ryan and Prybutok (2001) proposed five factors; Moffett *et al.* (2003) proposed ten factors, and recently, Chong and Choi (2005) have identified 11 factors. Even though the KM success factors proposed are comprehensive enough, they fail to emphasize which KM success factors need to be prioritized before the implementation of other KM success factors.

It is of paramount importance to identify the preliminary KM success factors that need to be concentrated by organizations before launching a full-scale KM program. This is especially critical to organizations which have just started their KM initiatives.

A thorough literature search indicates that there are limited attempts in the identification of what constitutes preliminary steps to KM implementation. Among the studies identified, Tiwana (2000) proposed the following preliminary KM success factors: KM and business strategy alignment, knowledge map development (K map), knowledge assets audit (K audit), and KM team design. Similarly, Nesbitt (2002) proposed business goals, K audit, K map and flexible organization creation. Barney (1995) opines that before KM is formally implemented, an organization needs to solve four questions: (i) Where is the value of knowledge?; (ii) How does the firm develop and exploit the special characteristics of knowledge and find a niche to obtain greater competitiveness?; (iii) How does the firm avoid being imitated by other firms of its special characteristics of KM?; (iv) How does the firm organize the exploitation of resources in order to implement KM?

To summarize, five preliminary KM success factors have been proposed: business strategy, organizational structure, Knowledge team, Knowledge audit and Knowledge map. These factors have been proposed based on a myriad of KM studies conducted by Barney (1995), Tiwana (2000) and Nesbitt (2002). As such, they are considered complete and applicable to the current study.

# 2.2.1 The effect of business strategy on implementation of Knowledge Management Systems

Strategy expresses in what direction the company will be heading towards in the future (Beijerse, 2000). The efforts to link KM programs to business strategy have become a vital source of competitiveness for all organizations (Cook, 1999; Kalata and Wenting, 1999; Long, 1997; Maier and Remus, 2002; Ulrich, 1998; Zack, 1999). Tiwana (2000) aptly states that "knowledge drives strategy and strategy drives KM." A study done by the American Productivity and Quality Centre (1999) concludes that organizations pursuing different KM strategies tend to be more successful when the strategy employed is aligned to their business strategy. Taking the cue from the above, it is important for the organizations that wish to implement KM to ensure that their knowledge strategy and knowledge program are consistent with their corporate ambitions.

# 2.2.2 The effect of organizational structure on implementation of Knowledge Management Systems

Organizational structure can be defined as the specification of jobs to be done within an organization and the ways in which those jobs relate to one another (Ebert and Griffin, 2005). The hierarchical structure of an organization affects the people with whom individuals frequently interact, and to or from whom they are consequently likely to transfer knowledge. Knowledge sharing is likely to occur within a larger group of individuals in more decentralized organizations. In addition, matrix structures and an emphasis on leadership instead of management also facilitate greater knowledge sharing primarily by cutting across traditional departmental boundaries (Fernandez *et al.*, 2004).

Organizational structure based on traditional command and control, does offer the benefit of reduced "noise," but this kind of structure will be quite inflexible in distributing and sharing knowledge laterally and across the teams (Bhatt et al., 2005). Therefore, to facilitate effective knowledge transfer in organizations, it is suggested that a decentralized and matrix structure is vital to ensure the firm's ability to adapt with the rapidly changing environment.

# 2.2.3 The effect of Knowledge Team on implementation of Knowledge Management Systems

Teams are groups of two or more people who interact and influence each other, are mutually accountable for achieving common objectives, and perceive themselves as a social entity within an organization (Cohen and Bailey, 1997). Teams are the units that actually carry out the work in many knowledge-intensive organizations (Mohrman *et al.*, 1995). A knowledge team allows organizations to apply diverse skills and experiences toward their processes and problem solving (Choi, 2000). Soliman and Spooner (2000) found that Knowledge Teams are required not only to improve the performance of the enterprise but also to ensure the effectiveness of the KM program. The major responsibility of a Knowledge team is to build, implement, focus, and deploy the knowledge management system (KMS). Since, KM is essential in this industry, it is hypothesized that a strong and capable K team that is formed by different functional departments is important to ensure a smooth and effective implementation of KM in organizations.

# 2.2.4 The effect of Knowledge Audit on implementation of Knowledge Management Systems

Knowledge of knowledge assets is critical to the proper planning of a KMS and is a rich source of information about the strengths of an organization. Hence, organizations should begin their KM practices by taking responsibility for and appraising what knowledge is already available by benchmarking successful acquisition or projects (best practices) or by maintaining a curriculum vitae file of the personnel or by organizing experience swapping sessions (Beijerse, 2000). According to Teece (2000), knowledge assets must be exploited internally in order for its full value to be realized by the owner. According to Bloodgood and Salisbury (2001) and Syed-Ikhsan and Rowland (2004b), every organization needs to identify where knowledge resides in the organization. This is very important when designing strategies to ensure that knowledge is being created, transferred, and protected in the right way and with the right individuals. Therefore, it is vital for the organizations to carry out K audit so as to examine what knowledge assets they have in their organizations prior to KM implementation. If this is not done, the organizations would have no focus and may waste their time and effort in investing in something from the beginning again which had already been owned by them.

# 2.2.5 The effect of Knowledge Map on implementation of Knowledge Management Systems

Knowledge-based organizations seek guides, maps and pathways for building knowledge across multiple performance levels. Organizations which value knowledge would like to know how and where to access the knowledge they need.

This is where Knowledge Map provides a snapshot of where an organization is at any given time relative to its competitors (Tiwana, 2000). It helps to describe how to find, what to find, and where to find useful knowledge within the organization. The required knowledge should be compared to the actual knowledge and the comparison would likely lead to the identification of gaps (Soliman and Spooner, 2000). Many companies, for instance, Chevron and Hughes Space & Communication are undertaking knowledge-mapping guides through in-house experts (Allee, 1997). Ernst & Young in Switzerland encourages creating Knowledge Maps of where knowledge, expertise, and experiences reside (people, documents, processes) and which knowledge needs to be shared with whom, when, how, and why. It is, therefore, important for the organizations to map their knowledge assets and compare them with their competitors prior to KM implementation. This is where effective strategies can be planned to close the gaps and thus ensure the firms' competitiveness in the marketplace.

# 2.3 Conceptual framework

The conceptual framework below presents the success factors for implementation of Knowledge Management systems. The conceptual framework presents five preliminary KM success factors that have been proposed: business strategy, organizational structure, Knowledge team, Knowledge audit and Knowledge map. These factors have been proposed based on a myriad of KM studies conducted by Barney (1995), Tiwana (2000) and Nesbitt (2002). As such, they are considered complete and applicable to the current study. Figure 1.1 shows the conceptual framework.

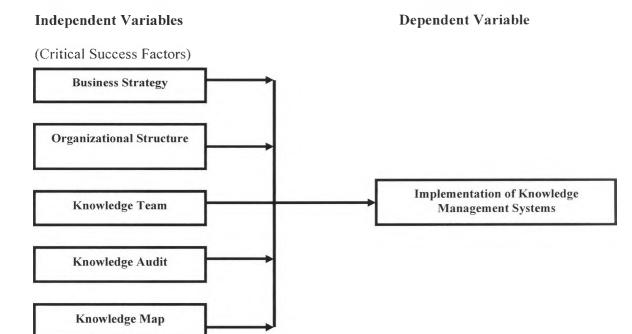


Figure 2.1: Conceptual Framework

#### 2.3.1 Business strategy

Organizational vision and mission must be related to KM as effective management always emanates from a top level vision or from a strategic review or planning process. Top managers should ensure the consistency between the organization's mission and knowledge strategy by clearly defining knowledge goals that are connected with functional strategies. In order for KM to support business strategy, the organizations must attempt to formulate KM objectives in the planning stage so that everybody is well aware of the objectives to be achieved.

# 2.3.2 Organizational structure

As the organizations are operating in a very competitive economy where changes occur every day, they must adopt a more flexible organizational structure if they want their KM practices to be successful. A flexible structure would help the firms to adapt to the rapid changes in order to remain competitive and stay ahead of their competitors. For KM to work, the structure should not interfere with the flow of information and ideas across departments. A flexible structure would allow the formation of ad hoc cross-functional teams in which experts from different departments can be gathered to ease the flow of ideas across departments; or provide venues for employees to communicate informally.

# 2.3.3 Knowledge team

Since, a well staff team is crucial for successful KM implementation, the organizations must realize that a Knowledge team is needed to storm the KM program, norm the KM program, perform the KM activities, and reform the KM program. To enhance the level of KM implementation, the organizations should ensure a competitive cross-functional Knowledge team is formed. The Knowledge team should fully understand the strategic direction of the program, the background of the organization, the long- and short-term objectives, and the financial limitations to accurately identify the knowledge required by the organization.

# 2.3.4 Knowledge audit

Knowledge audit is an important preliminary KM success factor which has received little attention from organizations. The main function of Knowledge audit is to identify any duplication, gaps, and overlaps in organization knowledge bases.

Though important, many organizations may leave it out due to resource constraints (Jun and Chai, 2003) where a K audit process would take up a long time to complete and this process may need experts to measure and audit its knowledge assets in the organizations. Knowledge audit should be used to keep track on the way people and technology mix to make sure the right information gets to the right people in the right form at the right time Knowledge audit will help the organizations to review and discover information they currently have but do not utilize; discover information they need but do not have; discover the gap between what information they have and what is needed; and discover how information is delivered.

# 2.3.5 Knowledge map

Knowledge map is critical to KM implementation as it helps to identify the position of an organization relative to its competitors. The resulting outcome of a Knowledge map process is represented by what the organization knows and what it should know in order to support the competitive position that it has adopted.

A proper Knowledge map will help the organizations in identifying areas of knowledge gaps and direct the organizations to think of ways of how to bridge the gaps in order to improve their competitive positions, either by developing new knowledge, by buying knowledge, by improving existing knowledge, or by getting rid of knowledge that is out of date or has become irrelevant.

# 2.4 Summary

The review of literature reveals that the recent surge of interest in knowledge management raises a number of questions for the future structure and performance of organizations. Perhaps the most significant is whether the widespread focus on knowledge management is justified and sustainable.

As a summary, the five preliminary KM success factors, i.e. business strategy, organizational structure, knowledge team, knowledge audit, knowledge map are important to any organizations before a full-scaled KM program can be undertaken. While these factors have received theoretical and practical attention, the empirical support of these preliminary factors towards a full-fledged KM implementation has yet to be established. This study takes the cue provided (Ahmed *et al.*, 1999) where all the five preliminary KM success factors will be empirically tested in this study and their levels of implementation as well as impact to the business will be examined. Based on the empirical results, areas that need further attention and improvement will be identified and recommendations will then be made to close the gaps to realize improvement.

# **CHAPTER THREE**

# **METHODOLOGY**

# 3.1 Introduction

This chapter covers a description of the study design, target population, sample design, data collection methods, research procedures and data analysis and presentation.

# 3.2 Research design

Research design provides the glue that holds the research project together. A design is used to structure the research, to show how all the major parts of the project, which include the samples or groups, measures, treatments or programs, and methods of assignment that work together to try to address the central research questions (Brown et al, 2003). A case study was used to undertake the current research. Case studies involve collecting empirical data, generally from one or a small number of cases. It usually provides rich detail about those cases, of a predominantly qualitative nature (Yin, 1984). Case study research excels at bringing researchers to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research (Hamel et al, 2003). Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships (Eisenhardt 2004). Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods (Miles and Huberman, 1984). Many wellknown case study researchers such as Stake (1995), Simons (1980) and Yin (1984) have suggested techniques for organizing and conducting the case study research successfully.

This case study research draws upon their work and proposes the following six steps that should be used: (i) Determine and define the research questions, (ii) Select the cases and determine data gathering and analysis techniques, (iii) Prepare to collect the data, (iv) Collect data in the field, (v) Evaluate and analyze the data, and (vi) Prepare the report. A case study is an ideal methodology when a holistic, in-depth investigation is needed (Feagin *et al* 1991) and was therefore the appropriate methodology for this study.

#### 3.3 Data Collection

The study respondents were the staff of Olivado Kenya (EPZ) Ltd. An interview guide was used to obtain primary data from the respondents. The interview guide was divided into two sections; section I covered items pertaining to profile of the respondents while section II covered items pertaining to the area of study. The interview guide was pilot tested on 5 randomly selected respondents before they are administered so as to ensure that the interview guides were understood in their correct perspective, in order to meet the research objectives.

#### 3.4 Data analysis and presentation

Once all the data was collected, data cleaning was done in order to enhance accuracy and completeness of collected data. The cleaning exercise ensured that only relevant data was retained for content analysis. Content analysis is the systematic qualitative description of the composition of the materials of the study. Its purpose is to analyze given information in order to determine factors that explain a given phenomenon. The information provided was organized into the respective themes and concepts from which generalizations were formulated and interpretations and comparisons made in line with established theories. The final report is narrative in nature, with a rich description of the findings

#### **CHAPTER FOUR**

# DATA ANALYSIS AND PRESENTATION OF FINDINGS

#### 4.1 Introduction

This chapter is dedicated to discussing the findings of the research in relation to the extent that the five critical success factors have been implemented at Olivado Kenya (EPZ) Ltd and to determine how successful the implementation of KMS has been in this organization

# 4.2 Respondent information

The respondents comprised of 67% male and 33% female. Majority of the respondents had academic qualification of college level. The researcher noted that the level of education affected the way the respondents understood and appreciated the knowledge management system. The fact that most respondents had been with the company for over two years meant that they had a good chance of understanding the company operations

# 4.3 The implementation of the five selected critical success factors at Olivado Kenya (EPZ) Ltd.

# 4.3.1 Business Strategy

All the respondents rated their company better than competitors in as far as assets, skills and technical competence are concerned and most of the respondents know who their competitors are. A good number of the respondents (60%) felt that the company is performing fairly and stands a good chance of brilliant performance in future.

Most respondents (73%) did not know their companies vision and mission. On the overall, business strategy as a preliminary CSF for KMS implementation has not been sufficiently addressed mainly because the vision and mission are remotely known. It is important for all the employees to know and understand the vision and mission of their organization. When employees find that the organization's goals are not in sync with their own personal goals or when they have no clue about what the organization's goals are they start looking out for other jobs. People like to, and should, be part of causes which are larger than themselves.

# 4.3.2 Organizational Structure

The respondents' duties and responsibilities clearly written down and communicated to them, little overlap of duties was noted, there were frequent meetings/trainings with staff from different departments, free access to other departmental heads other than the respondents head, and it was easy for all the employees to talk to the top managers.

As earlier seen, for KM to work, the structure should not interfere with the flow of information and ideas across departments. A flexible structure would allow the formation of ad hoc cross-functional teams in which experts from different departments can be gathered to ease the flow of ideas across departments. In Olivado, the study shows that the organizational structure supports the implementation of KMS.

# 4.3.3 Knowledge Teams

With regard to knowledge teams, in most cases, the respondents were aware that the firm was implementing a knowledge management system, that there was a team whose members were drawn from different departments that was charged with the responsibility of implementing this system. There were top managers in the teams, with a team leader and top management support. The team leader can play an important role in designing, implementing, and overseeing a firm's knowledge infrastructure. In total, the team would deliver all the functional benefits of having a knowledge team in place in the firm.

# 4.3.4 Knowledge Audit

With regard to the knowledge audit, the KMS was accessible, had relevant information that was fairly complete for purposes of performing the respondents duties. As seen before, knowledge of knowledge assets is critical to the proper planning of a KMS and is a rich source of information about the strengths of an organization.

#### 4.3.5 Knowledge Map

As far as the knowledge map went, most respondents felt that the KMS design is user-friendly and expert assistance was rarely required. The knowledge flow within the company was very good and most respondents felt that there was no immediate need to improve the system. In the overall, Olivado's KMS was better than the competitors although a few respondents did not have an idea of how competitors' KMS worked. Knowledge Map provides a snapshot of where an organization is at any given time relative to its competitors a fact that did not seem to be obvious to these employees in Olivado.

# 4.4 The implementation KMS at Olivado Kenya (EPZ) Ltd.

An overwhelming number of respondents pointed out that the implementation of the system at Olivado Kenya (EPZ) was a great success. The system had reduced the need to frequently edit information, led to time savings, reduced daily printing needs, reduced time taken to complete tasks, led to much improved communication with customers and boosted employee morale and finally, bettered employee understanding of company operations. As seen in the literature review, Knowledge Management is the retention of experience, knowledge, information and data about events in an organization that are then applied to future events to support decision-making. As such, these aspects of a KM system are evident in cost and time improvements. In this way, the KM serves as a systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize Olivado's knowledge-related effectiveness and returns from its knowledge assets.

# 4.5 The linkage between CSF and KMS at Olivado Kenya (EPZ) Ltd.

As per the findings available, there was a positive linkage between CSF and KMS at Olivado. CSFs had helped contribute to successful implementation of KMS at Olivado. The critical factors that had contributed positively included organizational structure, K-Team, K-audits and K-map. Most employees were not aware of the business strategy and its impact as a CSF was less obvious.

#### **CHAPTER FIVE**

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes the findings, draws conclusions relevant to the research, and makes recommendations on the same.

# 5.2 Summary of Findings

The first objective of the research was to determine the extent to which the five selected critical success factors had been implemented at Olivado Kenya (EPZ) Ltd. Business strategy was the least functional of the five owing to a lack of awareness of organizational vision and mission and therefore, the consequent linkage with business strategy. Organizational structure, K-team, K-audit and K-map were relatively well used in KMS implementation.

The second objective was to determine how successful the implementation of KMS was at Olivado Kenya (EPZ) Ltd. KMS implementation was seen to deliver certain operational benefits such as reduced costs, reduced rework, time savings, improved communication with customers and boosted employee morale and finally, bettered employee understanding of company operations. These benefits would eventually trickle down to the firm's bottom-line.

The third objective was to show the linkage between CSF and KMS at Olivado Kenya (EPZ) Ltd. The four CSF of K-team, K-audit, K-map and organizational structure conferred positive benefits. Business strategy was not well understood by the employees and hence its impact on the KMS appeared weaker in comparison to the other four CSF.

#### 5.3 Overall Conclusion

In Conclusion, the implementation of KMS guided by the four CSF was seen to improve the firm's position. Olivado's operational efficiency was impacted upon positively through reduced costs, reduced rework, time savings, improved communication with customers, boosted employee morale and finally, bettered employee understanding of company operations

# 5.4 Limitations of the Study

In certain cases, respondents did not appear to fully understand the information being sought. Though the interviewer encouraged the respondents to seek clarity, some respondents gave wrong responses or did not even respond to certain questions. The common resource limitations of time and money were also encountered in conducting the study.

#### 5.5 Recommendations

This study recommends that Olivado make increased use of business strategy to enhance KMS implementation. Additionally, the other four CSF should be enhanced in their use to implement the KMS.

#### 5.6 Areas for further Research

Other studies could expand the scope of CSF used to include other CSF like technology and training and assess their impact on KMS implementation.

# 5.7 Implications for Policy and practice

The findings of this study have provided research-based evidence to both policy makers and KM practitioners of the importance of having the CSF in place before the implementation of KMS. Policy makers can use this study to better understand the practices of knowledge management in organizations, and ways to apply it, the skills acquired or existing in the individuals working in the organization and the effect of KM on the organizational performance. Additionally, organizations should define KM in terms of their business objectives; this can be accomplished through concept analysis.

In this study, the implementation of KMS showed a positive impact on the organizational performance. Thus, KMS should be monitored, maintained and evaluated continuously from time to time in order to give the organization a competitive edge. As the company knowledge asset changes, methods and procedures are required to update the system to reflect the new knowledge and to delete the invalidated knowledge sources. To be successful, the organization must understand its core business strategy, understand what it doesn't know, develop a process approach, and allow adequate funding

It is essential to take a more systematic approach in the implementation of a KMS in order to clarify the nature of links between knowledge management practices, competencies, and organizational performance. The ultimate KM system must become part of the organization's normal working process rather than a special function. Failing to plan, focus, and integrate the process as part of the company normal routine results in lost time, effort, and money.

KM approaches should be designed in collaboration with different stakeholders. The users in affected areas should be directly involved in the formation of the project plan. The benefits of the KM program should be spelled out in the business case and presented to management and employees. The project plan should include incentives and rewards for those that contribute to the project. Academicians should give more emphasis to knowledge management practices and encourage students to improve personal competencies. The users of KMS should not be in comfort zone and should have intention to improve individual competencies.

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# **APPENDICES**

# **APPENDIX 1: INTERVIEW GUIDE**

This interview guide has been designed to collect information from selected staff of OLIVADO KENYA (EPZ) LTD and is meant for academic purposes only. The interview guide is divided into two sections. All the information collected will be treated in confidence.

# **SECTION I: RESPONDENT INFORMATION**

Please tick as appropriate					
1.1	Gender of respondent	Male[] Female[]			
1.2. Indicate your highest academic qualification? (Tick as appropriate)					
i.	Secondary education [ ]	ii. College education[ ]			
ii.	University [ ]	iv. Any other (Specify)			
3.1. For how long have you been in this organization?					
(a)	Less than 1 year	[]			
(b)	Between 1 and 2 years	[]			
(c)	Between 2 and 3 years	[]			
SECTION 2: Critical Success Factors to Implementation of KM					
2.1. Business strategy					
i. What is the vision and mission of your company?					

11.	. W	ho are your main competitors?
iii.	Н	ow has your company performed in the last two years?
iv.		ow would you compare your company to competitors in terms of:  Skills
	 b.	Assets
	 c.	Technical competence
2.2.	Orga	nizational structure
	i.	How are your duties and responsibilities communicated to you?
	ii.	Is there someone else in the organization whose duties over wrap with yours?
		If yes, please explain
	iii.	How often do you have meetings/trainings with staff from other departments?
	iv.	How are departmental challenges solved?

2.3.	Knowledge	tean

	i.	Who are the people implementing the Knowledge management system?
	ii.	How does the knowledge team conduct its business?
2.4. K	nowled	ge audit
i.	How v	would you rate the system in terms of:
	a.	Accessibility of information?
	b.	Relevance of the information to your work?
	c.	Completeness of the information?
	•••	
	d.	Usability of the system?
	• • •	
	• • •	
2.5. K	nowled	ge map
i.	Please	comment on the design of the knowledge management system.
	•••	
		•••••••••••••••••••••••••••••

ii.	How often do you need experts' assistance in accessing the system?		
iii.	How can knowledge flow be improved?		
iv.	Are there areas of the system that you would recommend improvement? Please		
	explain your answer.		
3.0. I	mpact of the implementation of KM to the business		
i.	How has the implementation of the system impacted on your day to day		
	activities?		

Thank you.

# **APPEDIX 2: LETTER OF RECOMMENDATION**



# UNIVERSITY OF NAIROBI SCHOOL OF BUSINESS MBA PROGRAM - LOWER KABETE CAMPUS

Telephone 020-2059162 Telephone "Varshy", Nairobi " Telex 22095 Varshy P.O. Hox 30197 -Natrobi, Kenya-

DATE 17 TH SEP 2009.

# TO WHOM IT MAY CONCERN

The bearer of this letter ESTHER WANGARI

Registration No: D61/P/7238/03

is a Master of Business Administration (MBA) student of the University of Nairobi.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate if you assist him/her by allowing him/her to collect data in your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thanky OVERSITY OF NAIROBI SHOOL OF BUSINESS MBA OFFICE DR. W.N. IRAMINOBI CO-ORDINATOR, MBA PROGRAM

# **APPEDIX 3: LETTER OF RECOMMENDATION**



22<sup>nd</sup> Sep 2009

#### TO WHOM IT MAY CONCERN

Esther Wangari, Registration Number D61/P/7238/03, who is pursuing an MBA at the University of Nairobi, has been granted permission to collect data from the staff of Olivado Kenya (EPZ) Ltd.

This decision has been made based on the request from the University and the assurance that the data collected will solely be used for academic purpose.

Yours Faithfully

Hunter Hannam

Director (ALT)

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