KNOWLEDGE MANAGEMENT FOR COMPETITIVE ADVANTAGE WITHIN COMMERCIAL BANKS IN KENYA

By

Asava – Kihima, Lawrence

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CHAPTER ONE: INTRODUCTION

1.1 Background

In the highly demanding business world today, an organization's competitive edge almost wholly depends on how well it can manage and deploy its corporate assets. These assets can be categorized into tangible and intangible assets. Traditionally, tangible assets like plant, equipment, inventory and financial capital are considered the most fundamental corporate assets. Intangible assets play a very little or vague role in any organization regardless from which industry it comes from (Vorbeck, Heisig, Martin & Schutt, 2001). Generally, many organizations until today still downplay the importance of their intangible assets. However, despite managing and giving prime focus to all their tangible assets, organizations are still finding it very hard to gain the advantage to beat their competitors. Eventually, organizations have found out that tangible assets can only help them to a certain extent. It is now becoming clearer that organizations require a much broader range of resources to be able to compete and succeed in the current competitive market. This is shown by an increasing number of organizations giving more emphasis to their intangible assets, which was mostly left idle, unexplored and unmanaged (Vorbeck *et al.*, 2001).

To compete and become successful in their own market, organizations must now learn to manage their intangible asset that is "*Knowledge*". This practice is generally known as Knowledge Management or sometimes is referred to as business intelligence. Knowledge Management is the concept in which an enterprise consciously and comprehensively gathers, organizes, shares, and analyzes its knowledge in term of resources, documents, and people skills (Lyons, 2000). The emergence of this "*knowledge era*" is radically changing what creates value in organizations (Carlisle, 2002), whereby the long-term viability

and prosperity of an organization increasingly depends on its ability to leverage the hidden value of its intangible assets.

Therefore, knowledge management is now becoming an undeniably important component in an organization's intangible asset. The continuous change in market expectations and the demands for new products have been gradually replacing the capital and labor-intensive firms by Knowledge intensive firms, and routine work by knowledge worker.

1.1.1 Knowledge Management

We are not only in a new millennium, but also in a new era: the knowledge era. According to the dictionary meaning knowledge is, "The psychological result of perception and learning and reasoning". Knowledge management has never been more important than it is today. With countries like China and India competing for a place in the global economy, moving up the value chain with more informed, educated and responsive business strategies is the only recourse. From the years, firms are trying to accumulate knowledge and to apply it to create & enhance economic value in order to create competitive advantage (Silver, 2000).

According to Corrall (1998), Knowledge Management can be presented as a convergence of ideas including core competencies and resource-based theories of the firm, 'info-mapping' and information resource management, the 'balanced scorecard' and intangible/intellectual assets, the learning organization and 'communities of practice', total quality management and business process reengineering, the networked organization and the 'boundary less firm'. Silver (2000) notes that Knowledge Management is a multi-dependent discipline integrating business strategy and process, organizational community and culture, collaboration, learning, expertise, and technology.

Knowledge Management is a conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that will improve organizational performance (Van Buren, 1999). Seemann et al. (1999) note that Knowledge Management can be thought of as a deliberate design of processes, tools, structures, with the intent to increase, renew, share or improve the use of knowledge represented in any of the three elements (structural, human, and social) of intellectual capital. According to Martinez (1998), Knowledge Management is about encouraging individuals to communicate their knowledge by creating environments and systems for capturing, organizing, and sharing knowledge throughout the company whose key objectives include making the organization act as intelligently as possible in order to secure its viability and overall success, and realize the best value of its knowledge assets. Knowledge management's purpose, thus, is to leverage an organization's intellectual assets in sustaining competitive advantage.

1.1.2 Competitive Advantage

One key requirement for corporate success in this competitive environment is recognizing how to 'out do' similar business players in the market. It is gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices. Porter (1985) defines Competitive advantage normally as the ability to earn returns on investment consistently above the average for the industry. It is a function of industry analysis and organizational governance. Barney (1991) adds that a firm is said to have a competitive advantage when it implements a value creating strategy not simultaneously being implemented by any current or potential competitors. Competitive advantage is recognized as the level of exceptional performance that a firm attains when it devises and implements a value-enhancing strategy that is not concurrently being followed by any existing or

possible competitors and when these firms are either incapable or reluctant to reproduce the benefits of this strategy (Barney, 1991; Lado and Zhang, 1998). Sustainable competitive advantage is dependent on building and exploiting core competencies and is the ability and capability to maintain such a level for a foreseeable future.

Following on from his work of analyzing the competitive forces in an industry, Porter (1985) suggested four "generic" business strategies that could be adopted in order to gain competitive advantage. The four strategies relate to the extent to which the scope of a business's activities are narrow versus broad and the extent to which a business seeks to differentiate its products. The differentiation and cost leadership strategies seek competitive advantage in a broad range of market or industry segments. By contrast, the differentiation focus and cost focus strategies are adopted in a narrow market or industry (Porter, 1985).

The differentiation strategy involves selecting one or more criteria used by buyers in a market - and then positioning the business uniquely to meet those criteria. This strategy is usually associated with charging a premium price for the product - often to reflect the higher production costs and extra value-added features provided for the consumer. Differentiation is about charging a premium price that covers the additional production costs, and about giving customers clear reasons to prefer the product over other, less differentiated products. Examples of Differentiation Strategy: Mercedes cars; Bang & Olufsen (Porter, 1985).

Porter (1985) notes that Cost Leadership aims at becoming the lowest-cost producer in the industry. Many (perhaps all) market segments in the industry are supplied with the emphasis placed on minimizing costs. If the achieved selling price can at least equal (or near) the average for the market, then the lowest-cost producer will (in theory) enjoy the best profits. This strategy is

usually associated with large-scale businesses offering "standard" products with relatively little differentiation that are perfectly acceptable to the majority of customers. Occasionally, a low-cost leader will also discount its product to maximize sales, particularly if it has a significant cost advantage over the competition and, in doing so, it can further increase its market share.

Differentiation Focus aims to differentiate a business within just one or a small number of target market segments. The special customer needs of the segment mean that there are opportunities to provide products that are clearly different from competitors who may be targeting a broader group of customers. The important issue for any business adopting this strategy is to ensure that customers really do have different needs and wants - in other words that there is a valid basis for differentiation - and that existing competitor products are not meeting those needs and wants (Porter, 1985). With Cost Focus, Porter (1985) argues that a business seeks a lower-cost advantage in just on or a small number of market segments. The product will be basic - perhaps a similar product to the higher-priced and featured market leader, but acceptable to sufficient consumers. Such products are often called "me-too's".

1.1.3 Knowledge Management for Competitive Advantage

We live the Knowledge Age, a new era which is likely to have a radically different outlook and which will entail a new business compass to traverse (van Buren, 1999). Quickness is crucial to the success of firms in the rapidly changing setting of the knowledge era. The development and practice of Knowledge Management is continuously and dramatically increasing in organizations. And due to improvements in Knowledge Management, the race for seeking a competitive edge through knowledge increases at an even faster rate (Hofer-Alfeis, 2003). Businesses have long recognized the importance of managing their intangible assets. The development of brands, stakeholder relationships,

reputation and the culture of the organization is readily viewed as providing sustainable success of a business. The ability to develop and leverage the value of these intangible assets comprises a core competency for organizations, particularly those providing financial and professional services. In these knowledge-intensive organizations, processing knowledge is central to business success (Prahalad and Hamel, 1990).

According to Quinn (1992), there is a general agreement that Knowledge Management will represent the most important competitive advantage factor for organizations. Success in today's global, interconnected economy springs from the fast and efficient exchange of information. Sustainable competitive advantage is no longer rooted in physical assets and financial capital, but in effective channeling of intellectual.

Spender (1996) contended that a firm's knowledge and its capability to create exclusive knowledge are at the center of the theory of the firm. Grant (1996) suggested that knowledge is the significant competitive asset that a firm possesses. The Resource-based theory was developed to understand how organizations achieve sustainable competitive advantages. Within the resource-based view (RBV), researchers assumed that the firm is a pool of hard-to-copy resources and capabilities and those discrepancies in size distribution and competitiveness of firms occur from their distinctive capabilities to build up, expand, and organize those resources and capabilities to create and apply value-enhancing strategies (Grant, 1996; Amit and Schoemaker, 1993; Barney, 1991; Peteraf, 1993). In the resource-based view, Knowledge is seen as a strategic asset with the potential to be a source of sustainable competitive advantage for an organization. It encompasses the facets to knowledge integration (efficiency, scope and flexibility) and the four primary mechanisms by which knowledge is

coordinated (rules and directives, sequencing, routines and group problem solving and decision making).

Grant (1996) and Amit and Schoemaker (1993) agree that these days, companies recognize the worth of their intellectual capital and are beginning to account for it in their balance sheets. They add that there is considerable evidence that the intangible component of the value of high technology and service that companies form outweighs the tangible value of its physical assets, such as buildings or equipment. The emergence of the global knowledge economy and the associated demands on business strategy have been well understood since the 1980's when the learning organization concepts became popular. The knowledge-based view of the firm defines Knowledge as a strategic asset that is rare, valuable, imperfectly imitable and non-substitutable, with the potential to be a source of competitive advantage for an organization (Barney, 1991).

1.1.4 Commercial Banks in Kenya

Commercial banks offer a wide range of financial services that address the specific needs of an enterprise. Commercial banks play a number of roles in the financial stability and cash flow of a country. They process payments through a variety of means including telegraphic transfer, internet banking and electronic funds transfers. Commercial banks issue bank checks and drafts, as well as accept money on term deposits. These banks also act as moneylenders, by way of installment loans and overdrafts. Loan options include secured loans, unsecured loans, and mortgage loans. These banks also provide a number of import financial and trading documents such as letters of credit, performance bonds, standby letters of credit, security underwriting commitments and various other types of balance sheet guarantees. They also take responsibility for safeguarding such documents and other valuables by providing safe deposit boxes.

The Banking industry in Kenya comprises of forty-six banks and non-bank financial institutions, fifteen micro finance institutions and forty-eight foreign exchange bureaus. Thirty-five of the banks, most of which are small to medium sized, are locally owned. A few large banks most of which are foreign-owned, though some are partially locally owned, dominate the industry. Six of the major banks are listed on the Nairobi Stock Exchange PricewaterhouseCoopers (2008)

The Key business environmental changes that have taken place in the banking industry in Kenya include changes in the regulatory framework, where liberalization exists but the market still continues to be restrictive, declining interest margins due to customer pressure, leading to mergers and reorganizations, increased demand for non-traditional services including the automation of a large number of services and a move towards emphasis on the customer rather than the product, introduction of non-traditional players, who now offer financial services products M-Pesa by Safaricom and Zap (Pesa Mkononi) by Zain and the Global Credit Crunch which has made it difficult for even interbank lending. The banking sector is poised for significant product and market development that should result in further consolidation of the banking sector (PricewaterhouseCoopers 2008).

1.2 Research Problem

For the past twenty years, commercial banks in Kenya have been actively automating their manual processes. This has resulted in the creation of many information systems even within one bank. While these information systems were able to help banks to better manage their processes and resources, they also have created a number of setbacks. One major setback of past information system is that it has resulted in the creation of huge volumes of data and information, resulting in a phenomenon like information explosion or information overload. This phenomenon has resulted in banks being faced with over whelming amount of information, in which employees and managers have to take time going through the bulk of information and select the best one to use. Knowledge management will radically change what creates value in these banks (Carlisle, 2002). It will provide employees opportunities to enhance skills and experience by working together and sharing other people's knowledge and learn from one another, thereby improving personal performance, which leads to better career advancement. It will also improve the bank's performance through increased efficiency, productivity, quality and innovation. Banks that will manage knowledge will claim higher rates of productivity.

While the assertion that Knowledge Management might be able to create sustained competitive advantage for banks is provocative, work in this area is relatively underdeveloped, both empirically and theoretically. Various researchers on knowledge management and competitive advantage including Carlisle (2002), Corral (1998), DeNisi (2000) and Grant (1996) emphasize describing why rather than systematically how Knowledge Management can lead to such an advantage through case descriptions. They have failed to develop a model that specifies the conditions under which Knowledge Management can, and cannot, be a source of competitive advantage.

The research aims to answer the following questions:

i To what extent have commercial banks in Kenya incorporated Knowledge Management as a competitive strategy?

ii Does Knowledge Management yield competitive advantage?

1.3 The Research objectives

i. To determine the extent to which Knowledge Management has been incorporated as a strategy in Commercial Banks in Kenya.

ii. To determine whether Commercial Banks using Knowledge Management enjoy Competitive Advantage.

1.4 Importance of the Study

This study is to highlight the extent of knowledge management integration in the banking sector. As discussed, Knowledge Management has been mentioned for its possible role in creating sustained competitive advantages for firms and particularly for banks. This study is aimed at examining how and why knowledge management can be used to create competitive advantage from the Resource Based View of the firm and to find out how commercial banks can practice Knowledge Management to get sustainable competitive advantage.

CHAPETR TWO: LITERATURE REVIEW

2.1 Knowledge Management

Knowledge is the main element that inspires the knowledge management initiatives in any sector. Allee (1997) explains in detail the knowledge archetype that relates data, information, knowledge, meaning, philosophy, wisdom and union. Basically, the archetype defines data as if there are so many whitecaps in a larger sea of information. It is considered as information when data are linked to another. As conjunction to that matter, information becomes knowledge when it is analyzed, linked to other information and compared to what is already known.

Some researchers define knowledge in the context of know-why, know-what, know-how, know-who, know-where and know-when, in order to relate it with managing knowledge concepts. For instance, Van den Bosch and Van Wijk (2001) present a conceptual framework of managerial knowledge integration. Know-what can be defined as something people carry around in their head and pass between each other but in contrast, know-how embraces the ability to put know-what into practice (Brown and Duguid, 2002). On the other hand, Japanese researchers like Nonaka, Toyomo and Konno (2002) define knowledge by emphasizing on the relative, dynamic and humanistic dimension rather than traditional Western epistemology (the theory of knowledge) that focus on absolute, static and non-human view of knowledge. They agree that: "knowledge is created in the spiral that goes through two seemingly antithetical concept such as order and chaos, micro and macro, part and whole, mind and body, tacit and explicit, self and other, deduction and induction and creativity and control" (Nonaka et. al, 2002).

Quintas (2002) discusses three different priorities that bring to different responses by firms in their knowledge management initiatives. Most of firms in the West give priorities to capturing employees' knowledge, exploitation of

existing knowledge resources or assets, and improved access to expertise. Others mainly focus on "capturing and re-using past experience, after-action reviews to capture learning, and building and mining knowledge stores" (Quintas, 2002). The third priority focuses on generic knowledge management initiatives that promote better communication, learning and knowledge sharing. Quintas (2002) quotes the definition of knowledge management from Xerox as: "Knowledge management is the discipline of creating a thriving work and learning environment that fosters the continuous creation, aggregation, use and re-use of both organizational and personal knowledge in the pursuit of new business value". According to Carlisle (2002), Knowledge management is concerned with making the best possible use of the creativity and expertise of people and the effective management of dynamic social processes which generate and exploit a wide range of different types of knowledge.

Corrall (1998) notes that Knowledge Management can be presented as a convergence of ideas promulgated over the past decade, including core competencies and resource-based theories of the firm, 'info-mapping' and information resource management, the 'balanced scorecard' and intangible / intellectual assets, the learning organization and 'communities of practice', total quality management and business process reengineering, the networked organization and the 'boundary less firm'. It is a multi-dependent discipline integrating business strategy and process, organizational community and culture, collaboration, learning, expertise, and technology (Silver, 2000). Van Ewyk (2000) adds that Knowledge Management is a conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that will improve organizational performance. Knowledge Management can also be thought of as a deliberate design of processes, tools, structures, with the intent to increase, renew, share or improve the use of knowledge represented in any of the three elements

(structural, human, and social) of intellectual capital (Seemann, DeLong, Stucky and Guthrie, 1999).

Knowledge Management is about encouraging individuals to communicate their knowledge by creating environments and systems for capturing, organizing, and sharing knowledge throughout the company (Martinez, 1998). It has two main objectives i.e. to make the organization act as intelligently as possible in order to secure its viability and overall success, and to realize the best value of its knowledge assets (Wiig, 1997). Knowledge management's purpose, thus, is to leverage an organization's intellectual assets in sustaining competitive advantage.

2.1.1 Knowledge-Based Resources

According to DeNisi (2000), Knowledge-based resources include all the intellectual abilities and knowledge possessed by employees, as well as their capacity to learn and acquire more knowledge. Thus, knowledge-based resources include what employees have mastered as well as their potential for adapting and acquiring new information. For several reasons, these resources are seen as being extremely important for sustaining competitive advantage in today's environment. First, the nature of work has been changing over the past several decades, so that many jobs require people to think, plan, or make decisions, rather than to lift, assemble, or build. This kind of work requires both tacit and explicit knowledge and the ability to apply that knowledge to work (Jackson & Schuler, 2002).

Some studies have examined the resources that should be possessed by the team as a whole, such as expertise, collectivism, and flexibility (for example Campion, Medsker, & Higgs, 1993) whereas others have focused on individual resources, such as general mental ability and conscientiousness (for example, Barrick,

Stewart, Neubert, & Mount, 1998). An organization might select highly conscientious individuals or train a team to develop more collectivist values, but neither of these routes would lead to sustained competitive advantage. Competitive advantage is gained only when the organization selects or develops these resources and structures work tasks and the reward system in ways that motivate the team to perform well and thereby contribute to organizational effectiveness (Miller & Shamsie, 1996). Miller & Shamsie (1996) add that team effectiveness may be enhanced through selection and training, but competitive advantage comes only when the organization structures rewards and work to leverage those effective teams to improve organizational performance

Many knowledge resources may be acquired by hiring new individuals, and these resources may improve performance of a job or even the performance of a team or work unit. In order to become sources of competitive advantage, however, such individual resources must increase performance at the organizational level (Jackson & Schuler, 2002).

2.1.2 Knowledge Management Systems (KMS)

Knowledge Management Systems are predominant in both theory and practice (Spender, 1996). Spender (1996) broadly defines, knowledge based systems as that using extensive domain specific knowledge to solve problems and support decision processes. According to Alavi and Leidner (1999), Knowledge Management Systems refer to the use of modern information technologies (e.g. the Internet, intranets, extranets, collaborative computing/groupware, software filters, agents, data warehouses) to systematize, enhance and expedite intra and inter firm knowledge management. They refer to a class of information systems applied to managing organizational knowledge. They are IT-based systems developed to support and enhance the organizational processes of knowledge creation, storage/retrieval, transfer and application (Alavi and Leidner, 2001).

Wickramasinghe (2003) notes that Knowledge Based Systems address both the past and the future since they focus on problem solving; they support both tacit and explicit knowledge, both objective and subjective aspects and are highly dependent on Internet-based technologies, and enable the sharing of knowledge throughout the organization.

2.1.3 Knowledge Management Model / Conceptual framework

Inkpen (1996) characterizes knowledge management progress as "a set of organizational actions that established the basis for accessing and exploiting knowledge". Knowledge related work, categorized by Davenport and Prusak (1998) are accessing, generating, imbedding and transferring. Environmental forces such as the importance for an organization to maintain its competitive advantage have forced organizations to manage knowledge well or the requirement of the organization to distribute its knowledge among its geographically dispersed human resources compel the organization to initiate a knowledge management programme. Through a combination of people and technology, information and energy are transformed into knowledge progress and structures that produce products and services. Three major components are involved in knowledge progress: knowledge creation, knowledge retention and knowledge sharing. The essence of knowledge management is to manage those components for organizational effectiveness (Inkpen, 1996).

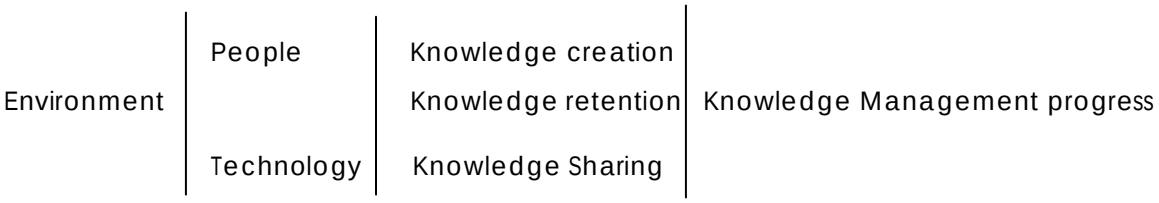

Figure 1: Knowledge Management Model

Source: Journal of Knowledge Management Practice, Vol. 7, No. 3, September 2006

2.1.3.1 Environment

According to Inkpen (1996), in any work environment most jobs are imprecise: best decisions depend on circumstances and available knowledge, which drive the need to rethink current approaches to problem solving and decision-making. Time pressure demands that organizations capitalize on lessons learned. However, this approach has many limitations as the decisions made based on past experience may not be the most appropriate one, (Inkpen, 1996). Consequently, there is a need for a sophisticated level of "know-how", "know-what", "know-who", "know-where" and "know-why". Inkpen (1996) argues that organizations need to have high performance to respond to market demands such as the right product at the right time, customer focused service and marketing strategies, high performance organizational practices and access to high value of information and knowledge.

A high performance organization pursues its goals in a changing environment by adapting and enhancing its behavior according to what it knows about itself and the world in which it needs to succeed. It is therefore a learning organization that is skilled at creating, acquiring, organizing and sharing knowledge that can gain competitive advantage. Two major components influencing the success of organization in adopting knowledge management are people and technology (Davenport and Prusak, 1998)

2.1.3.2 People

A challenge for knowledge management is managing and training people to embrace a knowledge management oriented culture. According to Duffy (1999), sharing knowledge especially proprietary or individual knowledge could result in power redistribution and face cultural resistance. Many studies emphasized the importance of corporate culture in successful knowledge management (Earl & Scott, 1999; Havens & Knapp, 1999). Some even claim that knowledge

management can be successful only with a change in culture. Furthermore, the new culture must be integrated with existing business processes and practices. Communication, reward systems, and leadership are important cultural factors in implementing knowledge management.

2.1.3.3 Technology

Knowledge in today's organizations can be characterized as "*fragmented*" (Duffy, 1999). There are extremely large volumes of knowledge dispersed in organizations with ever-increasing size. Accompanied with mergers, acquisition and alliances, banks are becoming more and more diversified in the type of businesses they operate. Information technology is only effective if used properly in data management (Davenport and Prusak, 1998). Now the question is whether information technology can do the same for knowledge management to enhance knowledge management initiatives.

Davenport and Prusak (1998) argue that to allow knowledge sharing anytime anywhere, several types of technological tools are available. Mobile technology, portable hardware and software, networks, email, teleconferencing and intranets are some of the commonly used technologies for knowledge creation and sharing. Knowledge repositories and data warehouse are some of the technologies used for data retention. The people and technology are the main elements that contribute to knowledge progress. Knowledge progress can be divided into three components namely knowledge creation, knowledge retention and knowledge sharing.

2.1.3.4 Knowledge Creation

Davenport and Prusak (1998) define this as the progress in which knowledge is captured and defined. Explicit knowledge can be easily captured and put in the form of a manual, booklet, or document. On the other hand, tacit knowledge is

imbedded in social structures, and therefore, it needs to be extracted, codified, and made explicit. Through this codification process, tacit knowledge is transformed into explicit knowledge.

2.1.3.5 Knowledge Retention

According to Inkpen (1996), the main purpose of retention is to allow reuse of knowledge. He argues that Knowledge retained can be readily shared and that protection of knowledge is equally important. Without security measure, the integrity of the knowledge could be at stake. Erroneous knowledge is just as damaging as inaccessible knowledge if not more.

2.1.3.6 Knowledge Sharing

When we communicate knowledge, it is the process of sharing (Inkpen, 1996). Both explicit and tacit knowledge can be shared. However, explicit knowledge can be shared more easily and will have little risk of creating error in the process. Tacit knowledge, which is hard to articulate, is the challenging part of knowledge sharing. In any case, sharing should be as direct as possible with few intermediaries (Buckman, 1998).

2.1.4 Knowledge Management in practice

Differences in direction toward Knowledge Management are established by empirical studies. There was a common agreement that Knowledge Management will symbolize the largest competitive advantage for organizations in the new millennium (Drucker, 1993; Quinn, 1992; Stewart, 1997; Toffler, 1990). Brown and Duguid (1998) addressed the organization of knowledge itself by suggesting that capabilities could be a source of competitive advantage for an organization. The key premise is that knowledge will reside in different areas of the organization. However, the focus of the firm should be on organizing that knowledge by providing translators, knowledge brokers and boundary spanners.

Coyne (1986) postulated that the sources of sustainable competitive advantage include four types of capability gaps/ differentials i.e. the functional/business system gap, the positional gap, the cultural or organizational quality gap, and the regulatory or legal gap. Process differential is the gap between an organization and its competitors based on the efficiency of their business processes or supply chains. Cultural differential incorporates the habits, attitudes; beliefs and values with permeate the individuals and groups that compromise the organization into a working unit. Positional differential exits because of past actions, which may have created a certain reputation with customers or a certain advantageous location of facilities. Regulatory differential occurs due to the existence of intellectual assets.

Spender (1996) noted that an organization's knowledge and its ability to generate new knowledge is the key to achieving competitive advantage. Similar to the resource-based view of the firm, he also argued that this competitive advantage only arises from the use of scarce, intangible, firm-specific knowledge. Zack (1999a, b) postulated that competitive advantage arises due to the strategic use of resources and capabilities, of which knowledge is believed to be the most significant. He offered an outline for describing and assessing an organization's knowledge strategy. Zack's approach to integrating knowledge strategy with business strategy was illustrated with cases drawn from a number of high profile organizations that include Dow Chemical, Buckman Laboratories, and Image Corp. His knowledge strategy framework matches the traditional strengths-weaknesses-opportunities-threats (SWOT) analysis, and is depicted along two dimensions. The first focuses on the extent to which the firm is mainly a creator, rather than a user of knowledge. The second dimension focuses on whether the primary sources of knowledge are internal or external. Together, these two dimensions help a firm explain its current or desired knowledge strategy. Zack advises that knowledge-based SWOT analysis can lead to mapping knowledge-

resources and capabilities against strategy opportunities and threats to clearly understand advantage and weakness. Yet to do so, the organization should express its strategic intent and afterward identify the knowledge required in executing it. The required knowledge should be compared to the actual knowledge. The comparison is expected to guide the detection of gaps, two of which are the strategic gap and the knowledge gap.

2.1.4.1 Application of Knowledge Management in Banking

The application of knowledge management in the banking industry does not really differ from other industries but the increasing complexity of bank's environment makes its implementation more difficult (International Data Corporation's (IDC) survey). Banks have realized the crucial role of knowledge management in gaining an edge in this competitive field, but there have been laggards in the adoption of knowledge management usually due to wait and see attitude of what will be the true benefits and pitfalls from early adopters. According to an International Data Corporation's (IDC) survey conducted across more than 600 banks in Western Europe, only 20% of banks apply knowledge management principles (Blesio & Molignani, 2000). This trend is actually more prevalent among large banks. With greater awareness of the importance of knowledge management, IDC expected this situation to change in the near future, and knowledge management was to become a priority for the banking sector.

Apart from large volumes of knowledge, the use of information technology in managing knowledge has given knowledge management a new dimension. The knowledge management progress by Central Bank of Malaysia for example focuses more on IT tools in managing knowledge. It is important that the use of technology and the "*social process of technology use*" are harmonized (DeSanctis & Poole, 1994). With appropriate strategies, IT could help to carry out and

maximize the benefits of many of the management initiatives, including knowledge management.

Based on Knowledge Management Programme discussed under the conceptual framework, it can be fairly said that knowledge management is not a technology. In contrast, technology is fundamental to the knowledge management progress. Knowledge management is defined as "a process that drives innovation by capitalizing on organizational intellect and experience" (Duffy, 1999). Knowledge management is intended to promote and support the creation of new knowledge, retention and sharing, thus contributing to innovation, an essential ingredient in banking success.

There are several examples of knowledge management application successfully implemented in banking sector. For instance, World Bank is renowned as one of the champions in knowledge management application. She has an extensive knowledge management approach in action. Relevant know-how was identified that could then be captured and entered into the knowledge base so that it was accessible by all staff. Relevant parts of the system are now becoming attainable externally, so that clients, partners, and stakeholders around the world will be able to have access to the know how of the organizations. For example, an Indonesian official needed to know the international experience on private sector involvement in vocational training. Through the help of the Human Development Network, the relevant task team leader was able to give to the official within a short time frame a comprehensive analysis of the international experience. On the other hand, when Swedish Insurance giant Skandia expanded its "points of sale" from 5,000 to 50,000 in less than five years, senior management began looking for a more effective and efficient manner of transferring knowledge and increasing its use throughout its global operations. It has leveraged internal know-how to dramatically reduce start-up time for new ventures to seven months, compared to an industry average of seven years. The

Bank of Montreal (BMO) is the oldest bank in Canada. It is also a Canadian third largest bank with sales of $US12.23 billion in 2000 (Dzinkowski, 2001). BMO is a leader in customer centric knowledge based solution. This bank wanted to change the status quo of the traditional knowledge discovery lifecycle and capture the potential benefits of improving the efficiency of turning models into production. As a result, during 2000/2001 the Bank of Montreal participated in a multimillion dollar project that would help make the knowledge discovery process more economical, error-free and faster. Finally, Deutsche Bank is the biggest Euro zone bank and the world's second largest bank (Dzinkowski, 2001). Deutche Bank has embraced the strategy of continuous, concentrated corporate learning and intellectual capital branding through its creation of the Deutsche Bank University (DBU). DBU is in initial stage of development and to a large degree follows the thinking of what are recognized by industry experts as best practices in developing a corporate university as an umbrella organization for learning.

2.2 Competitive Advantage

Porter (1985) defines Competitive advantage as the ability to earn returns on investment consistently above the average for the industry. Barney (1991) indicates that a firm is said to have a competitive advantage when it implements a value creating strategy not simultaneously being implemented by any current or potential competitors. One key requirement for corporate success in this competitive environment is recognizing how to sustain competitive advantage.

According to Porter (1999), we can create competitive advantage as we make tough choices about what we will do and not do. Sustained competitive advantage is recognized as the level of exceptional performance that a firm attains when it devises and implements a value-enhancing strategy that is not concurrently being followed by any existing or possible competitors and when

these firms are either incapable or reluctant to reproduce the benefits of this strategy (Barney, 1991; Lado and Zhang, 1998). Sustainable competitive advantage results only from strategic assets (Meso and Smith, 2000) and advantage it is dependent on building and exploiting core competencies and it's the ability and capability to maintain such a level for a foreseeable future. According to Mahoney and Pandian (1992), competitive advantage is a function of industry analysis, organizational governance and firm effects in the form of resource advantages and strategies.

2.2.1 Business Competitive strategies

Following on from his work analyzing the competitive forces in an industry, Porter (1985) suggested four "generic" business strategies that could be adopted in order to gain competitive advantage. The four strategies relate to the extent to which the scope of a business's activities are narrow versus broad and the extent to which a business seeks to differentiate its products.

The differentiation and cost leadership strategies seek competitive advantage in a broad range of market or industry segments. By contrast, the differentiation focus and cost focus strategies are adopted in a narrow market or industry (Porter, 1985). Differentiation strategy involves selecting one or more criteria used by buyers in a market - and then positioning the business uniquely to meet those criteria. This strategy is usually associated with charging a premium price for the product - often to reflect the higher production costs and extra value-added features provided for the consumer. Differentiation is about charging a premium price that covers the additional production costs, and about giving customers clear reasons to prefer the product over other, less differentiated products. Examples of Differentiation Strategy: Mercedes cars; Bang & Olufsen (Porter, 1985).

Cost Leadership aims at becoming the lowest-cost producer in the industry. Many (perhaps all) market segments in the industry are supplied with the emphasis placed on minimizing costs. If the achieved selling price can at least equal (or near) the average for the market, then the lowest-cost producer will (in theory) enjoy the best profits. This strategy is usually associated with large-scale businesses offering "standard" products with relatively little differentiation that are perfectly acceptable to the majority of customers. Occasionally, a low-cost leader will also discount its product to maximize sales, particularly if it has a significant cost advantage over the competition and, in doing so, it can further increase its market share (Porter, 1985).

Differentiation Focus aims to differentiate a business within just one or a small number of target market segments. The special customer needs of the segment mean that there are opportunities to provide products that are clearly different from competitors who may be targeting a broader group of customers. The important issue for any business adopting this strategy is to ensure that customers really do have different needs and wants - in other words that there is a valid basis for differentiation - and that existing competitor products are not meeting those needs and wants. With Cost Focus, Porter (1985) adds that a business seeks a lower-cost advantage in just on or a small number of market segments. The product will be basic - perhaps a similar product to the higher-priced and featured market leader, but acceptable to sufficient consumers. Such products are often called "me-too's".

2.2.2 Resource-based view of the firm

The resource-based view of the firm dominates the strategic management literature and has also found use in the management information systems (MIS) literature (Priem and Butler, 2001). It was developed to explain how organizations achieve sustainable competitive advantages. Advocates of the

resource-based view have tried to explain why firms differ and how it matters (Barney, 1991; Wernerfelt, 1984, Hoopes, Madsen and Walker, 2003).

Resource-based theory treats enterprises as potential creators of value-added capabilities, and the underlying organizational competence involves viewing the assets and resources of the firm from a knowledge-based perspective (Prahalad and Hamel, 1990; Conner and Prahalad, 1996). It focuses on the idea of costly-to-copy attributes of the firm as sources of business returns and the means to achieve superior performance and competitive advantage (Barney, 1991; Rumelt, 1987; Conner, 1991, Prahalad and Hamel, 1990).

A firm's resources consist of all assets both tangible and intangible, human and nonhuman that are possessed or controlled by the firm and that permit it to devise and apply value-enhancing strategies (Barney, 1991; Wernerfelt, 1984). Unique resources and capabilities are discussed under a variety of names, e.g. distinctive competences, core competences, invisible assets, core capabilities, internal capabilities, embedded knowledge, corporate culture, and unique combinations of business experience (von Krogh and Roos, 1995). Resources and capabilities that are valuable, uncommon, poorly imitable and non-substitutable (Barney, 1991) comprise the firm's unique or core competencies (Prahalad and Hamel, 1990) and therefore present a lasting competitive advantage. Intangible resources are more likely than tangible resources to generate competitive advantage (Hitt, Bierman, Shimizu and Kochhar, 2001). Specifically, intangible firm-specific resources such as knowledge permit firms to add up value to incoming factors of production (Hitt et al., 2001). It represents competitive advantage for a firm (Prahalad and Hamel, 1990; Collis and Montgomery, 1995; Post, 1997; Markides, 1997; Bogner,Thomas and McGee,1999). Such advantage is developed over time and cannot easily be imitated. Barney (1991) regards resources as those controlled by a firm that allow the firm to formulate and

implement strategies that expand its efficiency and effectiveness. He developed the VRIO framework for assessing what kinds of resources would present sustainable competitive advantage. These were value creation for the customers, rarity compared to the competition, inimitability, and organization.

2.3 Knowledge Management and Competitive Advantage

According to Oliver (1997), the quest to innovate through research and development is essential for firms to remain ahead of competitors. Indeed, many firms view the acquisition of new knowledge as a way to gain and maintain competitive advantage (Oliver, 1997). However, few firms fully realize the benefits from highly valued knowledge. Knowledge that is isolated in one department or in a specific segment of the value chain is not being used to its full extent. New knowledge should be harnessed and managed through internal knowledge management systems that create learning opportunities for other departments or product areas within the firm (Hansen, et al. 1999). Internal knowledge management systems may provide platforms for further development of knowledge transfer to external partners. By implementing internal and external knowledge management systems, firms can experience a greater competitive advantage and sustained success over a longer period of time.

In the twenty-first-century landscape, firms must compete in a complex and challenging context that is being transformed by many factors, from globalization, technological development, and increasingly rapid diffusion of new technology, to the development and use of knowledge (Hitt, Keats, & DeMarie, 1998). This new landscape requires firms to do things differently in order to survive and prosper. Specifically, they must look to new sources of competitive advantage and engage in new forms of competition.

Hofer-Alfeis (2003) argues that the development and practice of Knowledge Management is continuously and dramatically increasing in organizations. And due to improvements in Knowledge Management, the race for seeking a competitive edge through knowledge increases at an even faster rate (Hofer-Alfeis, 2003). Businesses have long recognized the importance of managing their intangible assets. The development of brands, stakeholder relationships, reputation and the culture of the organization is readily viewed as providing sustainable success of a business. The ability to develop and leverage the value of these intangible assets comprises a core competency for organizations, particularly those providing financial and professional services. In these knowledge-intensive organizations, processing knowledge is central to business success (Prahalad and Hamel, 1990; Drucker, 1998). Success in today's global, interconnected economy springs from the fast and efficient exchange of information. Sustainable competitive advantage is no longer rooted in physical assets and financial capital, but in effective channeling of intellectual capital (Seubert, Balaji and Makhija, 2001)

Spender (1996) contended that a firm's knowledge and its capability to create exclusive knowledge are at the center of the theory of the firm. Grant (1996) suggested that knowledge is the significant competitive asset that a firm possesses. The Resource-based theory was developed to understand how organizations achieve sustainable competitive advantages. Within the resource-based view (RBV), researchers assumed that the firm is a pool of hard-to-copy resources and capabilities (Conner, 1991) and those discrepancies in size distribution and competitiveness of firms occur from their distinctive capabilities to build up, expand, and organize those resources and capabilities to create and apply value-enhancing strategies (Amit and Schoemaker, 1993; Barney, 1991; Peteraf, 1993). In the resource-based view, Knowledge is seen as a strategic asset with the potential to be a source of sustainable competitive advantage for an

organization. It encompasses the facets to knowledge integration (efficiency, scope and flexibility) and the four primary mechanisms by which knowledge is coordinated (rules and directives, sequencing, routines and group problem solving and decision making).

Amit and Schoemaker (1993) note that these days companies recognize the worth of their intellectual capital and are beginning to account for it in their balance sheets. They add that there is considerable evidence that the intangible component of the value of high technology and service that companies form outweighs the tangible value of its physical assets, such as buildings or equipment. The emergence of the global knowledge economy and the associated demands on business strategy have been well understood since the 1980's when the learning organization concepts became popular. The knowledge-based view of the firm defines Knowledge as a strategic asset that is rare, valuable, imperfectly imitable and non-substitutable, with the potential to be a source of competitive advantage for an organization (Amit and Schoemaker, 1993; Barney, 1991; Peteraf, 1993).

However, for organizational knowledge to offer sustainable competitive advantage, it should have the following four properties: it should be valuable, rare, imperfectly imitable and non-substitutable or imperfectly substitutable (Amit and Schoemaker, 1993; Barney, 1991; Peteraf, 1993). A prerequisite of implementation of Knowledge Management is to understand and develop the infrastructure elements required to support the acquisition, management, and transfer of tacit and explicit organizational knowledge. Spender (1996) postulates that three areas of emphasis form the literature on organizational knowledge infrastructure; these are the emphasis on people, process and technology. Innovations that exploit a firm's assets are likely to add value to those resources, and the competitive advantage that results is likely to be sustainable.

According to Huber (1991), Knowledge Management can be viewed as a socio-technical system of tacit and explicit business policies and practices. It is enabled by the integration of information technology tools, business processes, human or social capital, continuous learning and innovations. Huber (1991: 89) argues that an organization learns if any of its units acquires knowledge that it recognizes as potentially useful to the organization. Productive learning exploits, explores, and restructures an organization's values and criteria, enhances organization capability and improves an organization's performance. This is the type of learning that organizations promote (Argyris and Schon, 1996). Learning is identified as a quantifiable improvement in activities, increased available knowledge for decision-making or sustainable competitive advantage (Cavaleri, 1994; Dodgson, 1993).

As with any major, enterprise-wide effort/system, knowledge management systems have been demonstrated in the popular, technical press as having significant impact for organizations that implement it right and well (Spender, 1996). Also, previous implementations of enterprise-wide efforts (e.g., Enterprise Resource Planning and CRM) have exhibited similar properties. Finally, the Resource Based View literature indicates that competitive advantages can be created and sustained via knowledge use. Therefore, we believe that the RBV is an appropriate theory to explain whether knowledge management systems indeed formally and empirically yield competitive advantage, and to formally and empirically explain the nature of the relationship between knowledge management and competitive advantage.

According to Nonaka and Nishiguchi (2000), there is therefore a general acceptance that sustainable competitive advantage in the 21st century will be accomplished thru Knowledge Management. Large organizations are becoming progressively more alert to the significance of knowledge for efficiency and

competitiveness. The principal cause for this concern with Knowledge Management is the idea that knowledge and its application are the means by which creativity can be promoted (Nonaka and Nishiguchi, 2000; Nonaka and Takeushi, 1995), innovation facilitated (Hargadon, 1998; von Krogh, Ichijo and Nonaka, 2000), and competencies pulled in such a way as to advance overall organizational performance whether in the public, private or not-for-profit sectors (Pitt and Clarke, 1999). Some of the Knowledge Management drivers include competition, customer focus, the challenge of a mobile workforce, equity in the workplace, and the global imperative (Macintosh, 1998). Knowledge Management is crucial to organizational survival. Nonetheless, Knowledge Management is complex involving great outflows of resources. As such it is becoming an ever more persistent subject within the business community.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an account of the procedures and methods that were used in carrying out the research. The study was guided by the research objectives laid down in chapter one. It covers the research design, population of the study, sampling method used in the research, data collection methods and instruments and analysis.

3.2 Research Design

The Researcher used sample survey methodology to obtain information about the large population by selecting and measuring a sample from that population. Due to the variability of characteristics among items in the population, the researcher applied scientific sample designs in the sample selection process to reduce the risk of a distorted view of the population, and then made inferences about the population based on the information from the sample survey data. This design also bears both the quantitative and qualitative characteristics required in this study. The research was both descriptive as well as causal and it aimed at establishing how Knowledge Management can lead to competitive advantage as well as attempting to explain relationships between Knowledge Management and Competitive advantage.

3.3 Population of Study

The population of interest in this study included all the forty-six commercial banks operating in Kenya. According to PricewaterhouseCoopers (2008), the Banking industry in Kenya comprises of forty-six banks of which, thirty-five mostly small to medium sized are locally owned while the rest are foreign-owned. The population was widely spread across the country with head offices located in the country's capital city of Nairobi.

3.4 Sample Design

3.4.1 Sample Size

The researcher selected five Commercial Banks out of the full complete set of Commercial Banks in Kenya with the assumption that the selection reflected the characteristics of the full set. By selecting some of the elements in the population, the research drew conclusions about the entire population.

3.4.2 Sample Selection

The choice of the five Commercial Banks to be included in the sample was by judgmental. This is because the researcher thought the chosen Banks were the most typical of the population with regards to the characteristics under investigation. The chosen banks then formed the various homogenous groups called strata from which six sub-strata were formed namely; Human Resources sub-stratum, I.T sub-stratum, Operations sub-stratum, Finance sub-stratum, Business Strategists sub-stratum and the Executive sub- stratum. Three respondents were selected from each sub- stratum by simple random to form a total of eighteen respondents from each stratum resulting into the overall research sample of ninety respondents.

3.5 Data Collection

The researcher collected primary data by means of communication with the respondents as well as through direct observation. The communication methods of choice included questionnaires and interviews. The questionnaires consisted of structured questions which were dispatched to the respondents in the middle level management to complete. Through interviews, the researcher met with the top management respondents and executed face to face discussions. The type of data collected through this methods included; data on Knowledge Creation, Knowledge Retention and Knowledge Sharing, People's skills and knowledge including qualifications, type of technology and degree of automation and the

banking environment. Through observation, the researcher monitored all aspects of the Knowledge Management that seemed relevant including the use of technology and knowledge sharing. This was appropriate in the early stages of the research when the problem needed to be formulated precisely to identify key components of the problem and to develop hypotheses.

Secondary data was collected from various documents within banks including policy documents on training and development, sample employee bio-data forms, the banks' communications both internal and external in form of circulars, brochures, notices, media advertisements, journals and newsletters.

3.6 Data Analysis

The data obtained from the study was both in numerical or quantitative and non-numeric or qualitative forms. For qualitative data, the researcher carried out content analysis based on the experiences of the individual participants. The researcher studied causal relationships and theoretical statements emerging from and grounded in the Knowledge Management and use within banks.

The quantitative data that was collected was mainly statistics on number of training and courses provided to staff each financial year, number of information systems in each bank and the number of users for each system. The researcher then worked out some descriptive statistics to summarize the pattern of findings in terms of distribution of learner days / trainings conducted number of systems and users. These descriptive statistics included measures of central tendency within a sample (e.g. mean) and measures of the spread of scores within a sample (e.g. range). By working out the mean, the researcher was able to describe how the data cluster together around a central point thereby being able to describe a characteristic among the study groups. The researcher considered

useful to work the standard deviation to indicate whether the scores in a given condition are similar to each other or whether they are spread out.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATIONS

4.1 Demographic Information

Study analysis checked on the nature of respondents to get background knowledge of the respondents.

4.1.1 Average Response Rate

The results showed that the average response rate was 68% with all respondents from all banks responding slightly above average as shown in Table1 below.

Bank	Respondents	Sample Size	Respondents Rate
Standard Chartered	11	18	61%
Cooperative Bank	11	18	61%
Barclays Bank	12	18	67%
Equity	12	18	67%
KCB	15	18	83%
	61	**90**	**68%**

Table1: Response rate

4.1.2 Respondents by Bank

Responses showed that KCB formed the biggest share of the respondents with 25% of those who responded being KCB employees while standard chartered and Cooperative banks had the least respondents responding only 18% each of all the respondents.

4.2 Extent of incorporation of Knowledge Management in Banks

The study aimed to understand how and to what levels knowledge management has been incorporated within the Kenyan commercial banks.

4.2.1 Recognition of Knowledge as part of asset base

Results showed that 94% of respondents felt Knowledge was being recognized as an undeniably important component in an organization's intangible asset. This means that banks in Kenya have realized that knowledge management has never been important than it is today. As a result of this, respondents felt that banks were taking Knowledge management is something beneficial scoring a mean score of 4.2 and a standard deviation of 0.9 as shown in table 2 below. This is also strongly evident when asked whether knowledge management is just a management fad, in which a mean score of 1.8 was recorded.

Employee perception	N	Mean	S.D
Never heard of knowledge management	57	2.0	1.1
Knowledge management is something being done	55	3.5	0.8
Knowledge management is just a management fad	55	1.8	0.8
Knowledge management is strategic part of the business	59	3.9	1.0
Knowledge management is something beneficial for the bank	57	4.2	0.9

Table 2: Banks thinking of Knowledge Management

Asked on the attitude of top management in relation to Knowledge management in their banks, there was an overall impression that top management has a positive attitude as it sees knowledge management as very important and provides full support scoring a mean of 3.6 as compared to a mean score of 1.3 responses as a waste and hardly bothers.

Top Management attitude	N	Mean	S.D
Very important and provides full support	60	3.6	1.0
Very important but hardly supports it	59	2.4	1.0
A waste and hardly bothers	57	1.3	0.8

Table 3: Attitude of top management towards knowledge management

4.2.1.1 Knowledge Creation

It was also evident that banks appreciate knowledge and its management. This is because; the finding revealed that there were efforts in knowledge creation with Technology playing a key role with a mean score of 4.0 and a standard deviation of 1.0. The banks engage employees, management almost at same levels in the creation of new knowledge with mean scores 3.3 and 3.9 respectively as shown in table 3 below.

Factors influencing knowledge creation	N	Mean	S.D
Employees influence the creation of new information	58	3.3	1.3
Top Management influence the creation of new information	59	3.9	0.8
Organization culture influence the creation of new information	58	3.7	0.9
Technology influence the creation of new information	58	4.0	1.0

Table 4: Influence of Knowledge Creation

4.2.1.2 Knowledge Storage

Clearly, it was evident that banks value knowledge management. Asked on the nature of knowledge stored by banks, fifty eight respondents responded with a mean score of 4.3 in agreement that the stored knowledge is important. However, a few felt that it was of no use recording a mean score of 1.5 as shown below. This gives a clear indication that commercial banks in Kenya are doing all they can to support Knowledge management.

Nature of Knowledge Stored	N	Mean	S.D
It is important	58	4.3	0.8
It is relevant	55	3.8	1.1
It is current and updated regularly	54	3.2	1.0
It is of no use	54	1.5	0.8

Table 5: Nature of Stored Knowledge at work places

4.2.1.3 Knowledge Sharing

Effective knowledge management entails either way movement of knowledge, free interaction and an organization culture that encourage interaction among all employee levels. Asked on how knowledge is shared at the at their banks, responses to Top-Bottom Sharing scored 3.8 mean score with a standard deviation of 0.9 while Bottom-Top Sharing scores a mean score of 3.1 with a standard deviation of 1.3. It was clearly evident that knowledge is shared as a mean score of 1.4 was record for responses for Knowledge sharing does not exist.

Nature of sharing knowledge	N	Mean	S.D
Top-Bottom Sharing	62	3.8	0. 9
Bottom-Top Sharing	57	3.1	1.3
Freely shared either way	57	2.9	1.0
Does not exist	57	1.4	0.8

Table 6: Nature of Sharing Knowledge at work places

Knowledge sharing was also established when respondents were asked to describe the nature of decision making. Majority responded that for decision making, knowledge was always created by collection and shared to people recording a mean of 3.5 with a standard deviation of 1.2. Evidence of stored relevant knowledge was also tested verified through this question when a mean of 3.1 was recorded for knowledge always being available for decision making.

Nature of Knowledge for decision making	N	Mean	S.D
Always available for decision making	62	3.1	1.0
Always equipped for decision making	57	2.7	0.9
Collected and shared to people for decision making	57	3.5	1.2

Table 7: Knowledge for decision making

4.2.2 Existence of Knowledge Management systems

Evidence of knowledge management was also established through the various systems established by banks. The Internet is the widely used system perhaps in knowledge creation with 95% of respondents reporting having it at their work places. This is closely followed by the intranet with 76% of respondents responding positively to its availability. However, Group wares are still not common among the commercial banks I Kenya with only 3% of respondents responding positively.

Type of System	Rate
Internet technology	95%
Data Warehousing technology	32%
Intranet technology	76%
Knowledge management software	39%
Extranet technology	42%
Decision support system technology	39%
Groupware technology	3%
Data management system technology	42%
E-commerce technology	27%

Table 8: type of knowledge systems

4.2.3 Problems in Knowledge management

The research was interested in establishing any problems experienced in knowledge management in commercial banks in Kenya. Asked on the extent to which Lack of participation by employees, Not willing to share knowledge, Lack of trust among employees, Lack of training and Lack of rewards or recognition for knowledge sharing are a cultural barriers in knowledge management, the response was an average effect meaning that these factors did not have significant effects neither can they be ignored.

Cultural barrier	N	Mean	S.D
Lack of participation by employees	59	2.7	1.2
Not willing to share knowledge	59	2.8	1.3
Lack of trust among employees	60	3.0	1.2
Lack of training	61	2.9	1.0
Lack of rewards or recognition for knowledge sharing	61	2.9	1.0

Table 9: Cultural barriers to Knowledge management

4.3 Incorporation of Knowledge Management at Work Place

Asked about how Knowledge Management has been incorporated at their work places, respondents averagely agreed that top management has allowed free movement of Knowledge within the organization by allowing free interaction among employees hence people learn from each other, all employees were frequently trained and new procedures amongst others with responses mean of 3.4 and standard deviation of 0.9 and 1.2 respectively. Banks also encouraged nurturing of an organizational culture that supports free knowledge sharing, regular update of information and knowledge in the knowledge bases as others as shown in table 10 below. However, a mean of 2.4 showed that majority of the respondents felt that an information base was not accessible by everyone.

Nature of Incorporation of Knowledge management	N	Mean	S.D
There is an information base accessible to everyone	60	2.4	1.3
Information in the knowledge base is regularly updated	58	3.0	1.1
Everyone is involved in new information creation	62	2.9	1.2
Our organizational culture supports free information sharing	59	3.1	1.0
All employees are frequently trained on new processes and procedures	58	3.4	1.2
Top management allows people to freely interact and learn from each other	60	3.4	0.9

Table 10: Nature of incorporation of Knowledge management

4.4 Knowledge Management for Competitive advantage

Our study on the effect of knowledge on a bank's competitive edge showed that respondents highly agreed that good Knowledge management creates superior customer focus and enhances best practices and is a generally good business strategy. Other respondents believed that knowledge management enhances creativity, product Innovation & Superior service as well as contributing to employee growth, productivity & responsibility with mean scores ranging between 3.4 and 3.6 as shown in table 11 below.

Business Strategy	N	Mean	S.D
Knowledge management as a strategy	62	3.6	0.8
Customer focus strategy	62	3.6	0.9
Employee growth, productivity and responsibility strategy	61	3.5	0.9
Creativity, product innovation and superior services	61	3.4	1.1
Best practices, processes and procedures as a strategy	62	3.6	1.1
Cost leadership as a strategy	61	3.5	1.0

Table 11: Effect of Knowledge management on Business strategies

It's evident that knowledge management directly impacts on key bank result areas. Table 12 shows mean scores in highs of 3.3, a clear indication that respondents agreed that knowledge management had a high impact on improving customer service, improving competitive advantage and improving quality, was a key to faster response to business issues and improving service delivery, faster decision making, all impacting on revenue growth among others.

Key business result areas	N	Mean	S.D
Improving the competitive advantage at work place	62	3.7	0.9
Improving customer service at work place	61	3.8	0.9
Enhancing innovations at work place	62	3.6	0.9
Inventory reduction at work place	60	3.3	1.1
Employee growth and development at work place	59	3.4	1.0
Reducing operation costs at work place	60	3.5	1.1
Revenue growth at work place	59	3.6	1.0
Faster and better decision making at work place	61	3.6	0.9
Intellectual property rights management at work place	60	3.2	0.9
Faster response to key business issues at work place	60	3.7	0.9
Improving quality at work place	62	3.7	1.0
Improving service delivery at work place	62	3.6	1.1

Table 12: Effect of Knowledge management on key business areas

CHAPTER FIVE: SUMMARY, DISCUSSIONS AND CONCLUSIONS

5.1 Summary, Discussions and Conclusions

The results centered on determining the extent to which Knowledge Management has been incorporated as a strategy in Commercial Banks in Kenya and whether Commercial Banks using Knowledge Management enjoy Competitive Advantage.

Kenyan banks had invested and incorporated knowledge management in their banks. This is evident from the degree of automation of all banks processes, Banks having Knowledge management systems such as internet, intranet, group wares, knowledge bases, training, free interaction among employees and access to knowledge systems as well as incorporation of Knowledge communities and management support of knowledge creation, sharing and storage. This means that Kenyan banks have strategically utilized knowledge management for their prosperity. The extent of strategic utilization include creating a good culture at all management levels by ensuring that all employees are equipped with the right knowledge through training, interactions and access to knowledge systems and top management recognizing knowledge as a key and a strategic resource and hence it fully supporting in management. Utilizing knowledge to create customer focus strategy, cost leadership strategy, improve revenues and create competitive advantage, enhancing Innovations, inventory reduction, employee growth & development, faster & better decision-making, intellectual property rights management, faster response to key business issues, improving quality and improving service delivery

The first objective was met in that Commercial banks in Kenya had realized that knowledge was important an as never before intangible asset and had highly automated their services, created Knowledge communities and incorporated

technologies like internet, intranet, and knowledge bases and created a culture where employees freely interact with each other in creating and sharing information. The banks have also embraced employee development through trainings and created access to knowledge systems. Top management fully supports a culture of knowledge building and sharing. The incorporation was satisfactory but more could be done in terms of incorporating other technologies like groupware, data warehousing, e-commerce and extranet.

The second objective was also met as the study showed that banks utilizing knowledge were able to create customer focus strategies, cost leadership strategies, record improved revenues thereby enjoying unmatched competitive advantage. Knowledge management enabled the banks enhance product innovations, inventory management, employee growth & development, faster & better decision-making, intellectual property rights management, faster response to key business issues, improve quality and improve overall service delivery.

5.2 Limitations of the Study

Despite the research having met its objects, there challenges experienced by the researcher. First, scarcity of time resources on the part of the respondents resulted in delays in responding to the questionnaire and numeral follow ups by the research. This in effect resulted in high communication costs and compromised on the quality of responses. Secondly, the research encountered difficulties in making appointments with the respondents to deliver and administer the questionnaires. This resulted in the longer research period. Finally, some target respondents were unwilling to take part in the research making it difficult to collect data from more experience and informed respondents.

5.3 Recommendations for Further Studies

The study found two major opportunities for other areas to be pursued. This include a study to determine the role of Human Resource in enhancement of Knowledge management as it is highly believed that Knowledge is about people's ability to comprehend situations and respond with positive effect. Secondly, the research found it necessary for a study to measure the relationship between training and Knowledge utilization by employees.

5.4 Recommendations for Policy

The study recommended that there was need to define how to have a balance of Knowledge flow that combines both top bottom and bottom top flow Knowledge. This will create and nature an atmosphere where people freely interact and exchange their experiences. There is also need to define how to incorporate and integrate other Knowledge technologies to reap maximum benefits of knowledge management including extranet, e-commerce, groupware technologies amongst others. A centralized knowledge system will ensure that everyone within an organization has access to the same knowledge at any one time. Finally, there is need for guidance on how all employees can have access to general knowledge and how to expand Knowledge access to utilize product innovation strategies and employees' productivity strategies.

REFERENCES

Amit, R., & Schoemaker, P.J.H. (1993). Strategic resources and organizational rent. *Strategic Management Journal, 14,* 33–46.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17,* 99–129.

Carlisle, Y. (2002), Strategic thinking and knowledge management, in Little, S., Quintas, P., Ray, T. (Eds.), *Managing knowledge – An essential reader*; pp. 122-138; London: The Open University & SAGE Publications Ltd.

Corral, S. (1998) "Knowledge Management: Are We in the Knowledge Management Business?" Ariadne, Vol. 18 [online], http://www.ariadne.ac.uk/issue18/knowledge mgt).

DeNisi, A. S. (2000). Performance appraisal and performance management: A multilevel analysis. In K. Klein & S. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations* (pp. 121–156). San Francisco: Jossey-Bass.

Grant, R. M. (1996, Winter) "Toward a Knowledge-Based Theory of the Firm", Strategic Management Journal, Vol. 17(Special Issue), pp. 109-122.

Hansen, M.T., Nohria, N. and Tierney, T. (1999). What's your strategy for managing knowledge? Harvard Business Review, 77 (2), 106–116.

Hitt, M. A., Keats, B. A, & DeMarie, S. M. (1998). Navigating in the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century. *Academy of Management Executive, 12,* 22–42.

Hitt, M. A., Nixon, R. D., Clifford, P. G., & Coyne, K. (1999). The development and use of strategic resources. In M. A. Hitt, P. G. Clifford, R. D. Nixon, & K. P. Coyne (Eds.), *Dynamic strategic resources: Development, diffusion, and integration* (pp. 1–15). New York: Wiley.

Hofer-Alfeis, J. (2003). "Effective Integration of Knowledge Management into the Business Starts with a Top-down Knowledge Strategy." Journal of Universal Computer Science, Vol. 9, No.7, pp. 719-728.

Jackson, S. E., & Schuler, R. S. (2002). Managing individual performance: A strategic perspective. In S. Sonnentag (Ed.), *Psychological management of individual performance.* New York: Wiley, 372–390.

Lado, A., and Zhang, M. J. (1998) “Expert Systems, Knowledge Development and Utilization, and Sustained Competitive Advantage: A Resource-Based Model”, Journal of Management, Vol. 24, No. 4, pp. 489-503.

Lyons, K.L. (2000), Using patterns to capture tacit knowledge and enhance knowledge transfer in virtual teams, in Malhotra, Y. (Ed.), *Knowledge management and virtual organizations*; pp. 124-143; Hershey: Idea Group Publishing.

Martinez, M. N. (1998). “The Collective Power of Employee Knowledge”. HR Magazine, Vol. 43, No. 2, pp. 88-94.

Miller, D. A., & Shamsie, J. (1996). The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. *Academy of Management Journal, 39,* 519–543.

Oliver, C. (1997). Sustainable competitive advantage: combining institutional and resource-based views. Strategic Management Journal, 18 (9), 697-713.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14,* 179–191.

Porter, M. (1985). Competitive Advantage: Creating and Sustaining Superior performance. New York: The Free Press

Prahalad, C. K., and Hamel, G. (1990) “The Core Competence of the Corporation”, Harvard Business Review, Vol. 68, No. 3, pp. 79-91.

Quinn, J. B. (1992) “The Intelligent Enterprise: A New Paradigm”, Academy of Management Executive, Vol. 6, No. 4, pp. 48-63.

Schoenecker, T. S., & Cooper, A. C. (1998). The role of firm resources and organizational attributes in determining entry timing: A cross industry study. *Strategic Management Journal, 19,* 1127–1143.

Seeman, P., DeLong, D., Stucky, S. and Guthrie, E. (1999). “Building Intangible Assets: A Strategic Framework for Investing in Intellectual Capital”. Second International Conference on the Practical Applications of Knowledge Management (PAKeM99), 21-23 April.

Silver, C. A. (2000) “Where Technology and Knowledge Meet”, The Journal of Business Strategy, Nov/Dec, Vol. 21, No. 6, pp. 28-33.

Spender, J. C. (1996) “Making Knowledge the Basis of A Dynamic Theory of the Firm”, Strategic Management Journal, Vol. 17, pp. 45-62.

Van Buren, M. E. (1999). “A Yardstick for Knowledge Management”. Training & Development, Vol. 53, No. 5, pp. 71-78.

Vorbeck, J., Heisig, P., Martin, A., Schutt, P. (2001), Knowledge Management in a global company – IBM global services, in Mertins, K., Heisig, P., Vorbeck, J. (Eds), *Knowledge Management – Best practices in Europe*; pp. 174-185; Berlin: Springer Verlag.

Appendix: Questionnaire

Questionnaire on Knowledge Management for Competitive Advantage within Commercial Banks in Kenya: An MBA project study by Asava, Kihima Lawrence

This questionnaire seeks to establish Knowledge Management as a business strategy within commercial banks in Kenya. The information in the questionnaire will be confidential and will not be used for any other purpose other than academic.

***Note**: Please put a tick mark ☑ in the appropriate box wherever required.*

***Important**: Kindly call +254 722 967 498 for collection and or any queries.*

SECTION 1: Company Information

Name of Bank : _____ Location (Head Office): _____

Ownership: a) Local / Indigenous [ ] b) Foreign / MNC [ ]

Number of Employees: _____

To what extent are the following functions automated / computerized?

	No Automation		Partial Automation		Fully Automated
a) Human Resources	1	2	3	4	5
b) Strategic division	1	2	3	4	5
c) Banking operations	1	2	3	4	5
d) Customer Service	1	2	3	4	5

SECTION 2a: Extent of Incorporation of Knowledge Management at work place

1. Does your bank recognize information / knowledge as a part of its asset base?

   a) Yes [ ] b) No [ ] c) Can't say [ ]

2. To what extent do you agree to each of the following in relation to what your bank thinks of Information / Knowledge Management?

	Least Agree		Average		Strongly Agree
a) Never heard of it	1	2	3	4	5
b) Something we are already doing	1	2	3	4	5
c) It is just a management fad	1	2	3	4	5
d) It is strategic part of the business	1	2	3	4	5
e) Something beneficial for the bank	1	2	3	4	5

3. Among the following, what best describes the scenario at your work place?

   a) Lack of Information [ ]
   b) Information overload. [ ]
   c) Reinventing the wheel. [ ]
   d) Loss of crucial knowledge due to a key employee leaving the organization. [ ]
   e) Poor sharing of knowledge in the organization. [ ]

4. To what extent do the following influence the creation of new information / knowledge at your place of work?

	Minimal		Average		Significant
a) Employees (People)	1	2	3	4	5
b) Top Management	1	2	3	4	5
c) The organizational Philosophy & Culture	1	2	3	4	5
d) Technology	1	2	3	4	5

5. To what extent do you agree to each of the following in relation to stored information / knowledge at your place of work?

	Least Agree		Agree		Strongly Agree
a) It is important	1	2	3	4	5
b) Its is Relevant	1	2	3	4	5
c) It is Current and updated regularly	1	2	3	4	5
d) It is of no use	1	2	3	4	5

6. To what extent do you agree to each of the following in relation to sharing information / knowledge at your place of work?

	Least Agree		Agree		Strongly Agree
a) Top – bottom sharing	1	2	3	4	5
b) Bottom - Up sharing	1	2	3	4	5
c) Knowledge is freely shared either way	1	2	3	4	5
d) No sharing	1	2	3	4	5

7. What is the overall impact of the following with regard to information / knowledge creation, storage and sharing at your place of work?

	Minimal		Average		Significant
a) Employees (People)	1	2	3	4	5
b) Top Management	1	2	3	4	5
c) The organizational Philosophy & Culture	1	2	3	4	5
d) Technology	1	2	3	4	5

8. To what extent do you agree to each of the following in relation to the attitude of senior management with respect to information / Knowledge Management at your work place

	Least Agree		Agree		Strongly Agree
a) Sees it as very important and provides full support	1	2	3	4	5
b) Sees it as very important but hardly supports it	1	2	3	4	5
c) Sees it as a waste and hardly bothers	1	2	3	4	5

9. Does your bank have an information / Knowledge Management System?

a) Yes [ ] b) No [ ]

10. Which other technologies has your bank implemented?

a) Internet [ ] b) Data warehousing [ ]
c) Intranet [ ] d) Knowledge management software [ ]
e) Extranet [ ] f) Decision support system [ ]
g) Groupware [ ] h) Data management system [ ]

11.To what extent do you agree to each of the following in relation to decision making at your place of work?

	Least Agree		Agree		Strongly Agree
a) Information is always available	1	2	3	4	5
b) People are always equipped with information	1	2	3	4	5
c) Information has to be collected and shared to people	1	2	3	4	5

12. To what extent is each of the following a cultural barrier in information / knowledge management at your place of work?

	Minimal barrier		Average		Significant barrier
a) Functional silos	1	2	3	4	5
b) Lack of participation by employees	1	2	3	4	5
c) Not willing to share knowledge	1	2	3	4	5
d) Lack of trust among employees	1	2	3	4	5
e) Knowledge sharing not a part of daily work	1	2	3	4	5
f) Lack of training	1	2	3	4	5
g) Lack of rewards/ recognition for knowledge sharing	1	2	3	4	5

13. What are the problems faced by your bank in using Technology for information / Knowledge Management?

a) Lack of training. [ ]

b) System too much complicated. [ ]

c) Lack of identifying the proper IT tool [ ]

d) Lack of time to learn. [ ]

e) Lack of user uptake due to insufficient communication. [ ]

f) Every day use did not integrate into normal working practice. [ ]

g) Unsuccessful due to technical problems. [ ]

SECTION 2b: The Incorporation of Knowledge Management at work place

14. To what extent do you agree to each of the following in relation to HOW Knowledge Management has been incorporated at your work place?

	L.A.		A.		S. A
a) There is an information / Knowledge base (store) accessible by everyone	1	2	3	4	5
b) Information in the knowledge base (store) is regularly updated	1	2	3	4	5
c) Everyone is involved in new information / knowledge creation	1	2	3	4	5
d) Our organizational culture supports free information / knowledge sharing	1	2	3	4	5
e) All employees are frequently trained on new processes and procedures	1	2	3	4	5
e) Top management allows people to freely interact & learn from each other	1	2	3	4	5

Note: L.A – Least Agree: A – Agree: S.A. – Strongly Agree

SECTION 3: Knowledge Management for Completive Advantage

15. To what extent does your bank use Information / Knowledge with respect to the following strategies?

	Minimal use		Average		Significant use
a) Knowledge Management as a business strategy	1	2	3	4	5
b) Customer focus	1	2	3	4	5
c) Employee growth, productivity & responsibility	1	2	3	4	5
d) Creativity, product Innovation & Superior service	1	2	3	4	5
e) Best practices, processes & procedures	1	2	3	4	5
f) Cost leadership	1	2	3	4	5

16. To what level of significance do Information / Knowledge Management play in achieving the best result with respect to the following at your place of work?

	Least Significant		Average		Extremely Significant
a) Improving the competitive advantage	1	2	3	4	5
b) Improving customer service	1	2	3	4	5
c) Enhancing Innovations	1	2	3	4	5
d) Inventory reduction.	1	2	3	4	5
e) Employee growth & development	1	2	3	4	5

f) Reducing operating Costs	1	2	3	4	5
g) Revenue growth	1	2	3	4	5
h) Faster & better decision-making	1	2	3	4	5
i) Intellectual property rights management.	1	2	3	4	5
j) Faster response to key business issues	1	2	3	4	5
g) Improving quality	1	2	3	4	5
h) Improving service delivery	1	2	3	4	5

Thank you for your kind co-operation