

**KNOWLEDGE MANAGEMENT PRACTICES
BY COMMERCIAL BANKS IN KENYA**

BY

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Declaration

This management research project is my original work and to the best of my knowledge has not been submitted for examination to any other university or college for the award of a degree, diploma or certificate.

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

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Dedication

I dedicate this research project to my family, especially to Daisy, my constant source of encouragement; to my children, Linda and Austin - may you also be motivated to reach your dreams, and; to my parents who have supported me throughout my studies.

Abstract

As the global economy fast transitions into a knowledge-based economy, there is need to develop a knowledge policy at the national as well as industry level to guide the various economic agents on knowledge management in Kenya. Effective knowledge management may be an important source of achieving long term sustainable competitive advantage. The concept of knowledge management is now an integral part of the strategic management processes of a growing number of organizations, as knowledge is increasingly considered as an important business asset and knowledge management as a key differentiator between firms. The objective of this study was to determine the extent to which commercial banks in Kenya have adopted knowledge management as well as to determine the various knowledge management practices by these banks.

The study used primary data collected through questionnaires with open and closed ended questions. The questionnaires were dropped at the respondents' banks and picked later. The study population comprised of all the 44 commercial banks in Kenya as at the time of study. Responses were received from 28 commercial banks, translating to 64% of the target population. The data collected was analyzed using descriptive statistics.

The findings of the study revealed that most of the banks did not have a knowledge management strategy in place, despite the high level of appreciation of the concept of knowledge management. Consequently, most banks did not have the requisite organizational structures and resources for effective knowledge management. On-the-

job training, particularly through social interaction and shared experience among organizational members, was the leading mode of developing, sharing and distributing knowledge. In addition, the use of e-mails, telephones, intranet, job rotation and one-to-one meetings, were important knowledge management practices. The most relevant modes of knowledge retention were through best practices, use of document management systems as well as employee retention strategies.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The global economy has evolved from the agrarian civilization, through the industrial revolution, then to the information society and is transiting to a knowledge or knowledge-based economy. According to analysts of the knowledge economy, the rules and practices that determined success in the industrial economy need to be rewritten: at the level of firms and industries, in terms of knowledge management, and at the level of public policy, as knowledge policy (Rooney et al., 2003). This research intends to establish the knowledge management practices among commercial banks in Kenya. This chapter introduces the concept of knowledge management and gives an overview of the banking sector in Kenya.

1.1.1 The Concept of Knowledge Management

Knowledge is increasingly seen as a primary business asset (Movizzo, 1995) while knowledge management is viewed as the key differentiator between firms since the 1990s (Drucker, 1995). The concept of knowledge management is now anchored in strategic and management processes of a growing number of organizations (Malhotra, 2005). Knowledge management is about delivering sustained business value, by enhancing the use of organizational knowledge through sound information management practices and organizational learning. It is founded on utilizing and exploiting the organization's information as well as on the application of peoples' competencies, skills, talents, thoughts, ideas, intuitions, commitments, motivations,, and imaginations (Harari, 1994). The knowledge-based perspective of the firm builds

upon and extends the resource-based theory of the firm. This perspective postulates that the services rendered by tangible resources depend on how they are combined and applied, which is in turn a function of the firm's knowledge. This knowledge is embedded in and carried through multiple entities including organizational culture and identity, routines, policies, systems and documents as well as individual employees (Grant 1996a, 1996b; Nelson & Winter 1982; Spender 1996). Because knowledge-based resources are usually difficult to imitate and socially complex, the knowledge-based view of the firm posits that these knowledge assets may produce long term sustainable competitive advantage. However, it is not so much the knowledge existing at any given time per se but rather the firm's ability to effectively apply the existing knowledge to create new knowledge and to take action that forms the basis for achieving competitive advantage (Beesley & Cooper, 2008).

The commonly held view is that there is a hierarchical relationship from data to information to knowledge, each varying on the basis of content, context, usefulness or interpretation, among others. Conversely, Tuomi (1999) argues that the often assumed hierarchy from data to knowledge is actually inverted and that knowledge must exist before information can be formulated and before data can be measured to form information. He argues that knowledge exists which, when articulated, verbalized and structured becomes information which, when assigned a fixed and standard interpretation, becomes data. It can be concluded that information is converted to knowledge once it is processed in the minds of individuals and knowledge becomes information once it is articulated and presented in form of words, text, graphics, or other symbolic forms. This view of knowledge implies that for individuals to arrive at the same understanding of data or information they must share a certain knowledge

base. Alternative views to knowledge exist including knowledge as a state of the mind, knowledge as an object, knowledge as a process, knowledge as a condition of having access to information or knowledge as a capability. These different views of knowledge lead to different perceptions of knowledge management (Carlsson et al., 1996). Each perspective suggests a different knowledge management strategy and a different perspective of the role of systems in supporting knowledge management.

There is no consensus on the definition of the concept of knowledge management and as such various definitions have been given. From the Wikipedia, knowledge management comprises of various strategies and practices used in an organization to identify, create, represent, distribute and facilitate adoption of insights and experiences embodied in individuals or organizational processes. Knowledge management strategies include on-the-job discussions, formal apprenticeship, discussion forums, corporate libraries, professional training and mentoring programs, knowledge bases, knowledge repositories, intranet, groupware and social software, among others. Similarly, Scarbrough, Swan et al. (1999) define knowledge management as any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations. According to Malhotra (2001) “Knowledge management caters to the critical issues of organizational adaptation, survival and competence in face of increasingly discontinuous environmental change. Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies and the creative and innovative capacity of human beings”. Another definition is offered by Macintosh (1999) that “knowledge management involves the identification and analysis of available and

required knowledge assets and knowledge assets related processes, and the subsequent planning and control of actions to develop both the assets and the processes so as to fulfil organizational objectives”. Likewise, Seemann et al. (1999) defines knowledge management “... as the deliberate design of processes, tools, structures, e.t.c. 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”.

Effective knowledge management can help an organization to achieve competitive advantage by improving internal processes, customer services and products, and by creating a good working environment for employees. Knowledge management is indispensable in the financial industry because banks compete on the basis of knowledge as most of their work is knowledge-based. The rate of product and service innovation is ever rising in response to sophistication of customers. Moreover, while the size of the work force has been declining due to competitive pressures, staff mobility and early retirement has been on the rise. The time available to gain experience and acquire knowledge has also diminished. As a consequence of these factors, valuable business knowledge is lost. The forces of globalization have also increased the complexity and dynamism of the business environment and with the liberalization of most economies around the world; the financial markets are equally open to both big and small players.

1.1.2 The Banking Sector in Kenya

As at 31st December 2009, the banking sector in Kenya comprised of the Central Bank of Kenya, 44 commercial banks, 2 non-bank financial institutions, one deposit-taking microfinance and 130 forex bureaux. Out of the 46 institutions 33 were locally owned and 13 foreign owned. The locally owned financial institutions comprised 3 banks with public shareholding, 28 privately owned commercial banks and 2 mortgage finance companies. The foreign owned financial institutions comprised 9 locally incorporated foreign banks and 4 branches of foreign incorporated banks. Commercial banks and mortgage finance companies are licensed and regulated under the Banking Act Cap 488 and Prudential guidelines issued under this Act while deposit taking microfinance institutions are licensed and regulated under the Microfinance Act and regulations issued under this Act. Foreign exchange bureaux are licensed and regulated under the Central Bank of Kenya Act cap 491 and Foreign Exchange Bureau guidelines issued under this Act.

The Micro Finance Act applies to both deposit-taking and non-deposit taking micro finance institutions. One deposit-taking microfinance institution, Faulu Kenya, had been licensed as at end of 2009, while others were at different stages of the licensing process, with 33 business names approved for deposit taking micro finance institutions. There were 41 registered members of the Association of Micro Finance Institutions of Kenya (AMFI), including 4 commercial banks, 1 insurance company and the Kenya Post Office Savings Bank. According to AMFI its members served over 4 million clients.

In 2009, the branch network for commercial banks grew to 996 branches from 887 in 2008, a growth of 12%. All provinces except Western province registered growth in branch network with Nairobi leading with 42 out of 109 of the new branches opened in 2009. The ATM network also expanded from 1,325 to 1,717 points of service, excluding 110 Pesa Point ATMs. The growth in the ATM network demonstrates increased automation of banking services in an effort to enhance operational efficiency amidst increased competition. Based on the size of assets, institutions were classified into three peer groups i.e. large with assets valued above Kes 15 billion, medium between Kes. 5 billion and 15 billion and small with assets valued at less than Kes 5 billion. 19 (42%) institutions were classified as large, 14 (31%) as medium and 12 (27%) as small. The large institutions accounted for 88.1% of net assets, 88.0% of customer deposits and 88.6% of net advances and 87.7% of capital and reserves. All the institutions in the large peer group registered pre-tax profits, while 11 of the medium and 8 in the small peer groups made profit.

During the year 2009, the banks continued to embrace new technology to improve their customer service delivery, driven by more informed customer demands and competition in the industry. In this regard a number of new products that leverage on ICT were introduced by several institutions. The number of commercial banks providing electronic banking stood at 33 out of the 44 banks. 19 out of the 33 banks offer electronic overseas money transfer services in collaboration with various international money transfer agents. The enhanced ICT platforms have enabled banks to introduce internet and mobile banking services and products such as viewing of accounts statements, cheque book requests, enquiries on cheques status, notification of entries into accounts, transfer of funds between designated accounts and utility

payment services. In an effort to promote financial access by the majority of Kenyans, CBK and the banking sector, continued with initiatives to put in place a credit information sharing mechanism which will enable individuals to use their information capital as collateral to access bank services. Further the amendment of the banking act to permit banks to use agents in their outreach will also extend the formal financial services access frontier. Several banks also upgraded their core banking systems to either Flexcube or T24.

The main role of commercial banks in economic development is financial intermediation, which is mobilizing of savings from those with surpluses and availing credit to those with deficits. They also facilitate the implementation of monetary policy through open market operations, reserve requirements, among others. Commercial banks also provide a safe and efficient system of payments both locally and internationally. The banking sector in Kenya is a source of livelihood to a significant number of residents, with a total employment level of over 26,000 staff as at end of 2009.

1.2 Statement of the Problem

Knowledge management has been recognized as a critical element in the management of any organization. However, most decisions in the banking sector are knowledge-based. Consequently, various studies have been conducted on knowledge management in the banking sector as well as in other industries. Cross and Weller (2001) surveyed 300 European banks and insurers on knowledge management. Similarly, Curado (2008) researched on the perceptions of knowledge management

and intellectual capital in the banking industry in Portugal. Nyawade (2005) carried out a case study of BAT Kenya on Employee Perception of Knowledge Management Practices. Osano (2007) studied Knowledge Management within publicly quoted firms in Kenya. Likewise, Muriangi (2008) surveyed Knowledge Management structures among Internet Service Providers in Kenya, while Wangari (2009) studied the Linkage of Critical Success Factors and Knowledge Management Systems at Olivado Kenya (EPZ) Ltd. Most of these studies have been carried out in developed nations or different industries and as such the findings may not be applicable to the context of this study. However, Asava (2009) studied Knowledge Management for competitive advantage within commercial banks in Kenya. The latter study was based on a sample of 5 banks and focused on the application of knowledge management as a tool to gain competitive advantage. None of these studies looked into knowledge management practices by commercial banks in Kenya.

This study sought to determine the knowledge management practices by commercial banks in Kenya. The study was guided by the following questions:

- i. Do commercial banks in Kenya have a knowledge management strategy in place?
- ii. How is knowledge created, stored/retrieved, shared and applied in these banks?

1.3 Research Objectives

This research aimed to achieve the following objectives:

- i. To determine the extent to which commercial banks in Kenya have adopted knowledge management

- ii. To determine the various knowledge management practices by these commercial banks.

1.4 Significance of the Study

The study highlights the concept and importance of knowledge management, the various approaches to this subject and the knowledge management practices by commercial banks in Kenya. These practices have been analyzed from the knowledge management process perspective, which entails knowledge creation, development, retention and distribution. The study also shows the extent to which knowledge management has been integrated and aligned with the corporate strategy. In addition, the study could be used for comparative analysis of the knowledge management practices by other organizations or economic sectors. This study also adds to the body of knowledge of Kenya's banking industry as regards knowledge management.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers the various approaches to knowledge management, knowledge management systems, the need for knowledge management and knowledge management studies in banks.

2.2 The Development of Knowledge Management

Fritz Machup, a Princeton economist, noticed as early as the 1960s that there was an increasing proportion of knowledge workers making up the workforce (Checkland & Holwell, 1998) and coined the phrase “knowledge industries”. Similarly, Marshall (1965), a neo-classical economist, was one of the earliest authors to state explicitly the importance of knowledge in an economy; “capital consists in a great part of knowledge and organisation... knowledge is our most powerful engine of production.” Likewise, Drucker (1993), noted that “We are entering (or have entered) the knowledge society in which the basic economic resource... is knowledge...and where the knowledge worker will play a central role.” The revolution in information and communication technology in the 1980s necessitated change in the way organizations operated and required new skills and flexibility on the part of the employee. Organizations needed to become “knowledge organisations”. There is need for companies to “know what they know” (Sieloff, 1999). If knowledge is to become a valuable corporate asset, it must be accessible, developed, and used (Davenport &

Prusac, 1998). Knowledge management was born out of this desire to improve the knowledge organisation.

Knowledge management in the business sector began in the early 1990's when organizations realized that harnessing a company's knowledge and collective expertise and distributing it to the right people at the right time, is essential to every organization and can give the organization a competitive advantage over competitors if the knowledge assets are utilized more effectively and wisely (Demarest, 1997; Drucker, 1999a, 1999b; Grulke 2000; Hardijzer, 2000; Birkenshaw, 2001; World bank, 2002; Riches, Kemp, Wolf, Pudlatz and Le Moul, 2003, as cited in Fourie, Schilawa, & Cloete, 2004). Managing and leveraging knowledge thus has to be at the core of any attempt to improve an organization's performance (Barquin, 2001). Therefore the last few years have been characterized by an ever increasing need for tools and applications that capture this knowledge effectively, promote efficient distribution, enhance intuitive usage and provide the ability to link concepts of knowledge to other (multimedia) sources. Companies are therefore investing large amounts of money in the development of knowledge management systems of which intranets, document management systems and data warehouses are the most popular technologies (McCune, 1999). When these systems are applied correctly by following a knowledge-centric approach with the necessary emphases on information technology, as well as creating an environment conducive to knowledge creation and sharing, companies often experience large increase in their return on investment (Sykme & Amidon, 1997; Wiig, 1999, as cited in Fourie, Schilawa, & Cloete, 2004).

2.3 The Knowledge Management Process

There are many activities involved in the knowledge management process and in fact there is no consensus on these activities. However, the knowledge management process should at least comprise of four broad activities of creation, storage/retrieval, transfer and application (Alavi & Leidner, 2001). Knowledge creation involves developing new content or replacing existing content with the organization's tacit or explicit knowledge (Pentland, 1995). Knowledge is created, shared, amplified, enlarged and justified in organizations through social and collaborative processes as well as through individual cognitive processes e.g. reflection (Nonaka, 1994). Nonaka (1994) identified four knowledge creation modes: socialization, externalization, internalization and combination.

It has been empirically proven that though organizations learn and create knowledge, they also forget (Argote et al, Darr et al, as cited in Alavi & Leidner, 2001). Thus, the storage, organization and retrieval of organizational knowledge otherwise known as organizational memory (Stein & Zwass, Walsh & Ungson, in Alavi & Leidner, 2001), is of paramount importance. Organizational memory extends beyond individual memory to include organizational culture, processes, procedures, structure, physical work setting and information archives. Alavi & Leidner (2001) note that while organizational memory helps in storing and reapplying workable solutions in form of standards and procedures, thus avoid waste of resources, memory can also encourage resistance to change as the status quo is preferred. IT can be used to enhance organizational memory e.g. by using query languages, database management systems and groupware.

Knowledge transfer occurs at various levels: between individuals, from individuals to explicit sources, from individuals to groups, between groups, across groups and from the group to the organization. Knowledge transfer channels can be informal or formal, personal or impersonal. Informal transfer mechanisms include unscheduled meetings, informal seminars and coffee break conversations, while formal transfer mechanisms may be in form of training sessions and plant tours. Personal channels include apprenticeship or personnel transfers while impersonal channels include knowledge repositories. IT can support all these forms of knowledge transfer, but has mostly been applied to informal, impersonal means through such venues as Lotus Notes discussion databases and formal impersonal means such as knowledge maps or corporate directories.

An important aspect of the knowledge base theory of the firm is that the source of competitive advantage resides in the application of the knowledge rather than in the knowledge itself. Grant (1996b) identifies three primary mechanisms for the integration of knowledge to create organizational capability: directives, organizational routines and self-contained task teams. Directives refer to the specific set of rules, standards, procedures and instructions developed through the conversion of specialists' tacit knowledge to explicit knowledge to non-specialist knowledge. Organizational routines refer to the development of task performance and coordination patterns, interaction protocols, and process specifications that allow individuals to apply and integrate their specialised knowledge without the need to articulate and communicate what they know to others. In situations in which task and

certainty and complexity prevent the specification of directives and organizational routines, teams of individuals with prerequisite knowledge are formed for problem solving. IT can support knowledge application by embedding knowledge into organizational routines. IT can also facilitate the capture, updating and accessibility of organizational directives.

2.4 Knowledge Management Practices

The “knowledge matrix” by Nonaka & Takeuchi (1995) classifies knowledge as either explicit or tacit, and either individual or collective. They also propose corresponding knowledge processes that transform knowledge from one form to another: socialisation (from tacit to tacit, whereby an individual acquires tacit knowledge directly from others through shared experience, observation, imitation, apprenticeship and so on); externalisation (from tacit to explicit, through articulation of tacit knowledge into explicit concepts); combination (from explicit to explicit, through merging, categorizing, reclassifying and synthesizing existing explicit knowledge); and internalization (from explicit to tacit, through a process of "learning by doing" and through understanding resulting from reading). Nonaka & Takeuchi model the process of "organizational knowledge creation" as a spiral in which knowledge is "amplified" through these four modes of knowledge conversion. It is also considered that the knowledge becomes "crystallized" within the organisation at higher levels moving from the individual through the group to organizational and even inter-organizational levels.

Similarly, Boisot (1998) proposes a model of knowledge asset development like that of Nonaka & Takeuchi. However, Boisot's model introduces an extra dimension (abstraction, in the sense that knowledge can become generalised to different situations). This produces a richer scheme allowing the flow and transformation of knowledge to be analysed in greater detail. In this scheme, knowledge assets can be located within a three dimensional space defined by axes from "uncodified" to "codified", from "concrete" to "abstract" and from "undiffused" to "diffused". He then proposes a "Social Learning Cycle" (SLC) that uses the I-Space to model the dynamic flow of knowledge through a series of six phases, namely scanning, problem-solving, abstraction, diffusion, absorption and impacting. In his model, Boisot applies the laws of thermodynamics in which knowledge assets that are highly abstract, highly codified and undiffused, are seen to be the most ordered and so have the lowest rate of entropy production and therefore the maximum potential for performing value-adding work. From both Boisot's model and that of Nonaka & Takeuchi it is clear that the process of growing and developing knowledge assets within organisations is always changing. This means that the knowledge management strategy identified as appropriate at one moment in time will need to change as knowledge moves through the organizational learning cycle to a new phase. The rate at which this cycle operates will vary from one sector to another.

McAdam & McCreedy (1999) propose three alternative knowledge management models: intellectual capital, knowledge category and social constructionist models. Intellectual capital models see knowledge as a commodity, marketed and traded by the knowledgeable (Davenport & Prusak, 1998). Stewart (1998) describes "hidden gold" within organizations as the intangible assets or intellectual capital of the firm-

the talents of its people, the efficacy of management systems, and the character of its relationships with its customers. Stewart sub-divides intellectual capital into human capital, structural capital and customer capital. Human capital refers to the capital value of the innovation of employees such as creating new products or improving processes. Structural capital is defined as “the knowledge that does not go home at night” and includes organizational culture, procedures, structures and systems. Customer capital is the capital value of an organization’s customers. Knowledge category models emphasize the complexity of knowledge and define different distinct forms of knowledge, such as explicit or tacit, codified or uncodified, diffused or undiffused.

Social construction of knowledge models view knowledge as intrinsically linked to the social and learning processes of the organization. Demarest (1997) developed a model that assumes that it is through the process of social interaction that constructed knowledge is embodied within organizations and subsequently disseminated through social processes. An example of the social constructionist approaches is a community of practice, which is a group of individuals that collectively create and share through shared practice.

Earl (2001) proposes three broad schools of knowledge management strategy: technocratic, economic and behavioural. Technocratic schools approach knowledge management through information or management technologies that support and condition employees in their everyday tasks. Economic schools aim to explicitly create revenue through the exploitation of knowledge as an asset. Behavioural schools approach knowledge management from a behavioural perspective, stimulating

and orchestrating management to proactively create, share and use knowledge resources.

Conversely, on the basis of business process, Wiig (1997) and the American Productivity and Quality Center (APQC) identified six emerging knowledge management strategies in a study of organisations considered to be leading the way in this area. The strategies reflect the different natures and strengths of the organisations involved (Wiig, 1997; Manasco, 1996). These strategies include: knowledge strategy as business strategy, intellectual asset management strategy, personal knowledge asset responsibility strategy, knowledge creation strategy, knowledge transfer strategy, and customer-focused knowledge strategy. In the same way, Day & Wendler (1998) of McKinsey & Company identified five knowledge strategies employed by large corporations. These are developing and transferring best practices, creating a new industry from embedded knowledge, shaping corporate strategy around knowledge, fostering and commercialising innovation, and creating a standard by releasing proprietary knowledge.

Alternatively, classifying knowledge by end results, Treacy & Wiersema (1993) proposed three "value disciplines," as a way to focus an organisation's activities. Successful organisations concentrate their efforts on a particular area and excel at it, rather than trying to be all things to all people and failing to excel at anything. These value disciplines are customer intimacy, product leadership, and operational excellence, reflecting the fact that 'value' is determined as a trade-off between convenience, quality and price. Organisations focused on Customer Intimacy strive to shape their products and services to match their customer's needs as closely as

possible. To follow through with this approach companies will invest in systems to collect information about their customers, including CRM, Data mining, Business Intelligence, etc. Alternatively, an Operational Excellence approach involves minimising overheads, eliminating intermediate production steps, optimising business processes, etc. Organisations focused in this direction will invest in systems such as Best Practice transfer, TQM, BPR, Process Improvement, etc. Conversely, the Product Leadership organisations strive continually to have state-of-the-art products or services, requiring a highly creative environment and the ability to bring new ideas to market quickly. These companies will choose knowledge management strategies supporting Communities, Collaboration, Discussion Forums, e.t.c.

Another approach that classifies knowledge by end results is Zack's Knowledge Strategy. Zack (1999) proposed a framework which helps an organisation make an explicit connection between its competitive situation and a knowledge management strategy to help the organisation maintain or re-establish its competitive advantage. He makes it clear that while each organisation will find its own unique link between knowledge and strategy, any such competitive knowledge can be classified on a scale of innovation relative to the rest of the particular industry as: core, advanced or innovative: core knowledge is a basic level of knowledge required by all members of a particular industry and does not represent a competitive advantage, advanced knowledge is specific and gives an organisation a competitive edge and innovative knowledge is that which enables a company to be a market leader. The approach further uses SWOT analysis to identify the strategic gaps in an organisation's knowledge by analysing the organisation's knowledge position along two dimensions referred to as exploration vs. exploitation, and internal vs. external knowledge.

Putting these two dimensions together, Zack describes organisations which are more exploitative of internal knowledge as having a "Conservative" knowledge management Strategy while those that are more innovative (exploring external knowledge) have a more "Aggressive" knowledge management Strategy.

Given that the classifications by knowledge listed above (Nonaka & Takeuchi's knowledge matrix and Boisot's I-Space model) focus on the process of knowledge transformation, and that most real world processes operate on a continuum rather than a step transformation, some researchers have suggested that "explicit" and "tacit" knowledge should be considered to be at the ends of a spectrum of knowledge types rather than being the only two categories on that spectrum. Beckman (1999) has suggested that "implicit" knowledge is an intermediate category of knowledge that is tacit in form, but is accessible through querying and discussion. Nickols (2000) proposes that Nonaka & Takeuchi's categories should be further broken down according to whether they focus on declarative or procedural knowledge.

Binney (2001) provides a framework, the knowledge management spectrum, to help organisations make sense of the large diversity of material appearing under the heading of knowledge management, and to help them assess where they are in knowledge management terms. His focus is on the knowledge management activities that are being carried out, grouped into six categories, namely, Transactional knowledge management: Knowledge is embedded in technology, Analytical knowledge management: Knowledge is derived from external data sources, typically focussing on customer-related information, Asset Management knowledge management: Explicit management of knowledge assets (often created as a by-

product of the business) which can be reused in different ways, Process-based knowledge management: The codification and improvement of business practice and the sharing of these improved processes within the organisation, Developmental knowledge management: Building up the capabilities of the organisation's knowledge workers through training and staff development and Innovation/creation knowledge management: Fostering an environment which promotes the creation of new knowledge, for example through R & D and through forming teams of people from different disciplines.

Binney's analysis reflects aspects of both the knowledge-centred classification of knowledge management and the business perspectives classification of knowledge management. In terms of business perspectives, Binney's categories reflect activities that support particular perspectives; for example, "Asset Management knowledge management" matches Wiig's "intellectual asset management strategy", while "Innovation and Creation knowledge management" reflects Treacy & Wiersema's "product leadership" strategy. And yet Binney's categories also form a progression from the management of explicit knowledge at one end to tacit knowledge at the other. So, for example, "Transactional knowledge management" involves codifying knowledge and embedding it in applications such as Help Desk Systems or Case Based Reasoning systems, while "Innovation and Creation knowledge management" focuses on facilitating knowledge workers sharing and creating new knowledge which rests in a tacit form in their heads.

The knowledge management spectrum seems to be a comprehensive description of possible knowledge management strategies. For each element of the spectrum, Binney

also lists a set of enabling technologies used to implement those kinds of knowledge management applications. This provides an alternative way to identify knowledge management activity already being undertaken within an organisation, even if not previously perceived in knowledge management terms. Binney notes that "there appears to be an author affinity to parts of the spectrum depending on each author's discipline and background. Management theorists tend to be primarily focused on the process, innovation/creation and developmental elements of the spectrum, with technologists focusing more on the transactional, analytical and asset management elements".

This helps explain disagreements over the definition of knowledge management: technologists tend to explain knowledge management in terms of externalisation or combination of knowledge, while management theorists generally focus on knowledge management as a process of socialisation and internalisation. This in turn leads to different opinions of approaches and techniques for knowledge management, notably the use of technology; management theorists tend to think of technology as being merely an enabling factor to socialisation and communication, while technologists see it as the central focus.

These two views of knowledge management can be characterised as the "cognitive" view and the "community" view. The community view emphasises knowledge as socially constructed and is managed primarily by encouraging groups and individuals to communicate and share experiences and ideas. The cognitive view regards knowledge in objective terms which can be expressed and codified, and is often expressed by the capture and codification of knowledge in computer systems.

2.5 Knowledge Management Systems

While information technology does not apply in all the issues of knowledge management, it is an important enabler in many knowledge management initiatives. Knowledge management systems are IT-based systems developed to support the organizational processes of knowledge creation, storage/retrieval, transfer and application. One of the most common applications of IT to knowledge management is internal benchmarking with the aim of transferring internal best practices (KPMG, 1998a). Another common application is the creation of corporate directories, also referred to as mapping of internal expertise. A third common application of knowledge management systems is the creation of knowledge networks (Ruggles (1998), as cited in Alavi & Leidner, 2001).

Bornemann & Sammer (2003) analysed the contribution of information and communication technologies to knowledge management activities as follows: communication technologies such as e-mail and video conferencing are useful for knowledge transfer activities and can also contribute to knowledge creation activities. Collaboration technologies combine different technologies with other tools and make them available in a single interface. They can support knowledge creation and transfer activities. Document management and content management systems integrate content and facilitate knowledge transfer. Adaptation and presentation technologies including personalization and visualization tools facilitate knowledge transfer. E-learning settings integrate content and help users understand it and communicate with each other, hence knowledge transfer.

Content generation tools support knowledge creation and integration. Artificial intelligence is applied to knowledge organization activities. Networking technologies provide the necessary infrastructure for many activities particularly knowledge transfer. Formats and standards such as file transfer formats and meta data standards are useful in integration, organization and maintenance of content within an organization and play a special role in knowledge transfer across corporate boundaries. Hardware provides the necessary infrastructure for all the other technology. Suitable input and output devices are important for knowledge transfer activities, with audio/video equipment and mobile devices playing an ever increasing role.

2.6 The Need for Knowledge Management

Robertson (2004) argues that the need for knowledge management in any organization arises from a number of common situations that could benefit from it including: call centres, front line staff, business managers, aging workforce and innovation. Call centres have increasingly become the public face for many organizations yet these centres face many challenges including the high customer expectations, costly and lengthy training for new staff and high staff turnover. Furthermore, many organizations have a wide range of front line staff, who interact with customers or public and who may be very geographically dispersed hence limited sharing of information. The challenge is thus ensuring consistency, accuracy and repeatability. Business managers are also faced with information overload and the challenge is sound decision making using accurate, complete and relevant information. Another challenge is the loss of key staff through retirement or

otherwise, impacts upon the level of knowledge within the organization, hence the need to capture or transfer this knowledge. The importance of innovation in ensuring long term growth and even survival calls for new ways and means of operating in a more dynamic and complex business environment. All these challenges can be alleviated by formulating and implementing an effective knowledge management strategy.

Cross & Weller (2001) surveyed 300 European banks and insurers and highlight poor understanding, conservative approach, cultural rather than technological approach, a grass roots approach and a focus on paper documents have delayed the development of knowledge management in the banking sector. The International Data Corporation (IDC) carried surveyed more than 600 banks in Western Europe, and found out that only 20% of the banks applied knowledge management principles, as cited by Mizintseva & Gerbina (2009) in their review of Knowledge Management Practice in commercial banks. Curado (2008) determined that most banks in Portugal pursued the exploitation knowledge management strategy and that the innovative image of the banks is strictly allowed in the commercial departments. She further found out that the most valued intellectual capital component is human capital related to people, associated with the amount of knowledge that does not remain in the organization when the individuals go out and generally in tacit form. The other two intellectual capital components, internal and external structures, made of the tacit and explicit knowledge that is contained in documents, routines, organizational culture and long term established relations with clients, suppliers and other institutions, was less valued. Curado (2008) also established that there was no knowledge manager in any of the participating banks in her study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research design, the study population, data collection instruments and the data analysis techniques.

3.2 Research Design

This study adopted a descriptive survey that aimed at determining the knowledge management practices by commercial banks in Kenya. Asava (2009) successfully used this method in a similar study. Descriptive statistics are used to describe the basic features of the data in a study. They present quantitative descriptions in a manageable form.

3.3 The Population

The target population of study was all the commercial banks operating in Kenya. According to the Central Bank of Kenya Bank Supervision Department Annual Report (2009), there were 44 banks in Kenya as at 31st December 2009. However, 28 commercial banks responded to the survey, giving a response rate of 64%.

3.4 Data Collection

The study used primary data collected using a questionnaire containing both open and closed ended questions. The questionnaires were dropped at the head offices of respective commercial banks and collected later. The target respondents were middle and senior level bank managers. One respondent was interviewed per commercial bank.

3.5 Data Analysis

Descriptive statistics were used to analyse the data. This involved the use of frequency tables, percentages and mean scores.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and interpretation of the research study. A total of 28 out of 44 questionnaires were received from the respondents. This translates to 64% response rate, which was considered reasonable for some meaningful data analysis.

4.2 Demographic Characteristics

The researcher sought to understand the demographic characteristics of the respondents with regard to their management position, age, years of service both in the bank and in their current positions, and their understanding of the concept of knowledge management. Similarly, the demographic characteristics of the respondent banks was collected and analyzed, with regard to their branch network, years of operation in Kenya and staff establishment.

4.2.1 Demographic Characteristics of the Respondents

The respondents were asked to indicate their position in the organizational hierarchy, which was divided into three, namely: top, middle and lower management. The results are shown in Table 4.1.

Table 4.1 Respondent's Position

Position	Frequency	Percentage
Top Management	3	11
Middle Management	17	61
Lower Management	8	28
Total	28	100

Source: Research data

As shown in Table 4.1, 61% of the respondents were in the middle level management while 28% were in lower level management and 11% were in top management.

The respondents were then asked to indicate their age bracket from the specified four age groups and the results are contained in Table 4.2.

Table 4.2: Respondents' Age Brackets

	Frequency	Percentage	Cumulative Percentage
20-30	2	7	7
31-40	10	36	43
41-50	14	50	93
Over 50	2	7	100
Total	28	100	

Source: Research data

As depicted in Table 4.2, 50% of the respondents were aged between 41 and 50, while 36% were in the 31 to 40 age bracket. 7% of the respondents were aged over 50 and an equal percentage was in the 20 to 30 age bracket. Cumulatively, 43% of the respondents were aged between 20 and 40, while the majority, 93%, were between 20 and 50.

The respondents were also asked to specify how long they had worked with their current employers and were given three categories: up to ten years, between eleven and twenty years and over twenty years. The results are summarized in Table 4.3.

Table 4. 3: Respondents’ years of service in the bank

	Frequency	Percentage
Up to 10 years	9	32
11-20 years	15	54
Over 20 years	4	14
Total	28	100

Source: Research data

As shown in Table 4.3, 54% of the respondents had served for 11 to 20 years in the bank, while 32% had served for not more than 10 years. 14% of the respondents had served for more than 20 years in their banks.

The respondents were further asked to specify how long they had worked in their current job position and were given three categories: up to ten years, between eleven and twenty years and over twenty years. The results are summarized in Table 4.4.

Table 4. 4: Respondents’ years of service in the current position

	Frequency	Percentage
Up to 10 years	22	79
11-20 years	6	21
Over 20 years	0	-
Total	28	100

Source: Research data

As shown in Table 4.4, 79% of the respondents had served in their current position for not more than 10 years while 21% had served for between 11 and 20 years. None of the respondents had served for more than 20 years in their current position.

Finally, the respondents were asked whether or not they understood the term knowledge management. 82% of the respondents said that they were conversant with the term knowledge management, while 18% were not sure of it.

4.2.2 Demographic Characteristics of the Banks

The respondents were asked to indicate the number of branches that their banks had in Kenya. The number of branches was categorized into five and the results are in Table 4.5.

Table 4. 5: Branch Network

Branches	Frequency	Percentage
1-10	3	11
11-30	5	18
31-50	10	36
51-100	6	21
Over 100	4	14
Total	28	100

Source: Research data

Table 4.5 shows that 36% of the respondent banks had a branch network of between 31to 50, 21% had 51 to 100, while 18% had 11 to 30. 14% of the banks had a branch network of over 100 and 11% had not more than 10 branches.

The respondents were then asked to indicate how long their banks had been in operation in Kenya and the results are summarized in Table 4.6.

Table 4. 6: Years of Operation in Kenya

	Frequency	Percentage	Cumulative Percentage
Less than 5	2	7	7
5-10	2	7	14
11-20	6	22	36
Over 20	18	64	100
Total	28	100	

Source: Research data

Table 4.6 indicates that 64% of the respondent banks have been operating in Kenya for over 20 years, while a further 22% have operated 11 to 20 years. 7% of the banks have been in operation in Kenya for 5 to 10 years while another 7% had done less than 5 years. Cumulatively, 14% of the banks have been in operation for 10 years or less, while 36% have operated for not more than 20 years. This could be attributed to the high barriers to entry into the banking sector business.

Finally, the respondents were asked to indicate the number of employees in their respective banks, given three categories: less than 500, 501 to 1000, and over 1000. The results are contained in Table 4.7.

Table 4. 7: Number of employees

	Frequency	Percentage
Less than 500	7	25
501-1000	8	29
Over 1000	13	46
Total	28	100

Source: Research data

From table 4.7 above, 46% of the respondent banks had a staff complement of over 1000, while 29% had between 501 and 1000. 25% had less than 500 employees.

4.3 Knowledge Management Practices

The respondents were asked five questions with regards to knowledge management in their banks: whether they had a knowledge management strategy in place; whether they had a special unit or department accountable for knowledge management; whether there was a knowledge management leader/manager; whether there was a dedicated budget for knowledge management and whether knowledge management was among their core values. The results are as shown in Table 4.8.

Table 4. 8: Knowledge Management Practices

<i>Statement</i>	Yes		No	
	f	%	f	%
There is a knowledge management strategy in place	2	7	26	93
There is a special unit or department accountable for knowledge management	1	4	27	96
There is a knowledge management leader/manager	1	4	27	96
There is a dedicated budget for knowledge management	1	4	27	96
Knowledge management is among your core values	4	14	24	86

Source: Research data

As shown in Table 4.8, 93% of the respondent banks did not have a knowledge management strategy in place. Furthermore, 96% of the banks did not have a special unit or department accountable for knowledge management or a knowledge management leader/manager and had no dedicated budget for knowledge management. 14% of the banks had knowledge management as part of their core values, while 86% did not. This implies that a majority of the commercial banks have not embraced the concept of knowledge management in their organizational cultures.

The respondents were also asked to rate the relevance of eight human resources practices in their banks with regard to knowledge management on a scale of 1 to 5, denoting not relevant at all to very relevant respectively. The results are as shown in Table 4.9.

Table 4.9: HR Practices Related to Knowledge Management

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant	Mean
	1	2	3	4	5	
Training focus on acquiring new knowledge	0	0	2	6	20	4.6
Recruitment and selection based on candidates ability to collaborate and share knowledge	0	3	12	9	4	3.5
Training focus on changing employees attitude to promote a knowledge sharing culture	0	3	14	8	3	3.4
Individuals rewarded for teamwork and knowledge sharing	0	4	15	7	2	3.3
Employees promoted on ability to collaborate with other staff	4	6	11	6	1	2.8
Good KM behavior monitored and built into appraisal system	7	5	8	7	1	2.6
Employees are given time for knowledge sharing activities	6	8	11	2	1	2.4
Employees leaving bank are encouraged to run classes to transfer their knowledge	18	3	4	2	1	1.8

Source: Research data

As depicted in Table 4.9, most respondents, with a mean score 4.6, stated that staff training was focused on acquiring new knowledge. The second in the ranking, with a mean score of 3.5, was that the recruitment and selection of candidates was based on the candidate's ability to collaborate and share knowledge. Following closely with scores of 3.4 and 3.3 were that the training of employees focused on changing their

attitude to promote a knowledge sharing culture and that individuals are rewarded for teamwork and knowledge sharing, respectively.

It also emerged that the promotion of employees was least based on the ability to collaborate with other staff and neither was good KM behavior monitored and built into appraisal system. These two practices scored 2.8 and 2.4 respectively. The practice of giving time to employees for knowledge sharing activities ranked seventh with a score of 2.4. Ranked last on the list, with a score of 1.8, was the practice of encouraging employees leaving the bank to run classes to transfer their knowledge.

4.4 Knowledge Creation/Conversion Processes

The respondents were asked to rate the relevance of 4 knowledge creation/conversion processes as applied in their banks on a scale of 1 to 5, denoting not relevant at all to very relevant respectively. Table 4.10 contains the results of this finding.

Table 4. 10: Knowledge Creation/Conversion Processes

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant	Mean
	1	2	3	4	5	
Socialization (conversion of tacit knowledge to new tacit knowledge through social interaction and shared experience among organizational members e.g. apprenticeship)	0	0	0	10	18	4.6
Internalization (creation of new tacit knowledge from explicit knowledge e.g. through learning and understanding resulting from reading or discussion)	0	0	0	17	11	4.4

Table 4.10 Cont...	7	18	3	0	0	1.9
Combination (creation of new explicit knowledge by merging, categorizing, reclassifying and synthesizing existing explicit knowledge e.g. literature survey reports)						
Externalization (conversion of tacit knowledge to new explicit knowledge e.g. articulating best practices or lessons learned)	25	3	0	0	0	1.1

Source: Research data

As depicted in Table 4.10 above, the most relevant knowledge creation/conversion process, with a mean score of 4.6, was socialization (conversion of tacit knowledge to new tacit knowledge through social interaction and shared experience among organizational members e.g. apprenticeship). The second most relevant process, with a mean score of 4.4, was internalization (creation of new tacit knowledge from explicit knowledge e.g. through learning and understanding resulting from reading or discussion). The combination process (creation of new explicit knowledge by merging, categorizing, reclassifying and synthesizing existing explicit knowledge e.g. literature survey reports) emerged as not so relevant, scoring a mean of 1.9. The process of externalization (conversion of tacit knowledge to new explicit knowledge e.g. articulating best practices or lessons learned) scored a mean of 1.1 hence was not relevant at all.

4.5 Modes of Developing and Retaining Knowledge

The respondents were asked to rate the relevance of nine modes of knowledge development as applied in their banks on a scale of 1 to 5, denoting not relevant at all to very relevant respectively. The results are tabulated in Table 4.11.

Table 4. 11: Modes of Developing Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant	Mean
	1	2	3	4	5	
On-the-job training	0	0	0	4	24	4.9
Teamwork	0	0	3	8	17	4.5
One-to-one conversation	0	0	5	10	13	4.3
Brainstorming sessions	1	2	3	17	5	3.8
Training with internal and external experts	0	2	8	12	6	3.8
Suggestion box	8	14	0	4	2	2.2
Maintain a directory of people's skills so that others can have access	16	7	2	2	1	1.8
Employees writing a report after training	16	9	0	3	0	1.6
Enterprise resource planning	24	2	2	0	0	1.2

Source: Research data

Table 4.11 shows that on-the-job training and teamwork are very relevant modes of knowledge development, with a mean score of 4.9 and 4.5 respectively. One-on-one conversations, brainstorming sessions and training with internal and external experts, were also relevant modes of knowledge development, scoring a mean of 4.3, 3.8 and 3.8 respectively. The use of suggestion boxes, maintaining of a directory of people's skills so that others can have access and employees writing a report after training, were not very relevant modes of knowledge development. Enterprise resource planning was hardly used and had a mean score of 1.2.

The respondents were asked to rate the relevance of seven modes of retaining knowledge in their banks on a scale of 1 to 5, denoting not relevant at all to very relevant respectively. The results are in Table 4.12.

Table 4. 12: Modes of Retaining Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant	Mean
	1	2	3	4	5	
Best practices	0	0	2	5	21	4.7
Document Management System	0	5	5	11	7	3.7
Employee retention strategies	0	8	2	9	9	3.7
“Lesson learned” reports	0	12	10	6	0	2.8
Decision Support System	12	8	3	3	2	2.1
Groupware	21	5	0	2	0	1.4
Expert System	23	3	1	1	0	1.3

Source: Research data

The results in Table 4.12 show that the most relevant mode of knowledge retention was through best practices, with a mean score of 4.7. This was followed by the use of document management systems and employee retention strategies, both of which scored 3.7. The use of decision support systems was used but to a limited extent, scoring 2.1. Groupware and expert systems were hardly used as modes of knowledge retention.

4.6 Modes of Sharing and Distributing Knowledge

The respondents were asked to rate the relevance of 9 modes of knowledge sharing and distributing in their banks on a scale of 1 to 5, denoting not relevant at all to very relevant respectively. The results are as shown in Table 4.13.

Table 4. 13: Modes of Sharing and Distributing Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant	Mean
	1	2	3	4	5	
On-the-job training	0	0	0	4	24	4.9
E-mails	0	0	0	15	13	4.5
Telephones	0	4	0	14	10	4.1
Intranet	0	0	8	12	8	4.0
Job rotation	0	2	6	12	8	3.9
One-to-one meetings	0	6	3	11	8	3.8
Newsletters	6	7	10	5	0	2.5
Employee self service	20	5	3	0	0	1.4
Video conference	26	2	0	0	0	1.1

Source: Research data

On-the-job training was the most relevant mode of sharing and distributing knowledge, with a mean score of 4.9, followed closely by emails scoring 4.5. Use of telephones, intranet, job rotation and one-to-one meetings were also relevant scoring between 4.1 and 3.8 respectively. Newsletters, though used, were not as popular and scored 2.5. The least used modes of knowledge sharing and distribution were employee self service and video conferencing, which scored 1.4 and 1.1 respectively.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This research study was aimed at determining the extent to which commercial banks in Kenya have adopted knowledge management as well as determining the various knowledge management practices by these commercial banks.

The study found that the majority of the respondents were conversant with the term knowledge management and that most of the banks did not have a knowledge management strategy in place. Besides, most of the banks did not have a special unit or department accountable for knowledge management or a knowledge management leader/manager and had no dedicated budget for knowledge management. Furthermore, most of the respondents did not have knowledge management as part of their core values.

As regards knowledge management practices, the most relevant knowledge creation/conversion process was socialization (conversion of tacit knowledge to new tacit knowledge through social interaction and shared experience among organizational members e.g. apprenticeship) and internalization (creation of new tacit knowledge from explicit knowledge e.g. through learning and understanding resulting from reading or discussion). On-the-job training and teamwork were the leading modes of knowledge development. The most relevant mode of knowledge retention was through best practices and also the use of document management systems and employee retention strategies. On-the-job training was also was the most relevant

mode of sharing and distributing knowledge as well as the use of e-mails, telephones, intranet, job rotation and one-to-one meetings.

5.2 Conclusion

This study aimed to determine the extent to which commercial banks in Kenya have adopted knowledge management. To this end, it established that, while there is a general sense of appreciation of the concept of knowledge management by commercial banks in Kenya, the state of knowledge management is still at the infancy level and is yet to be formally entrenched as part of corporate strategy. Another objective of the study was to determine the various knowledge management practices by these commercial banks. On-the-job training, particularly through social interaction and shared experience among organizational members, was the leading mode of developing, sharing and distributing knowledge. In addition, the use of e-mails, telephones, intranet, job rotation and one-to-one meetings, were important knowledge management practices. The most relevant modes of knowledge retention were through best practices, use of document management systems as well as employee retention strategies.

5.3 Recommendations

5.3.1 Recommendations with Policy Implications

This study found that the majority of the commercial banks in Kenya did not have a knowledge management strategy and it therefore recommends that, at the corporate level, knowledge management strategies should be formulated and integrated with the business strategy. In addition, knowledge management implementation would be enhanced with the establishment of knowledge management steering committees,

knowledge management units as well as the provision of other requisite resources. Moreover, as the global economy fast transitions into a knowledge-based economy, there is need to develop a knowledge policy at the national as well as industry level to guide the various economic agents on knowledge management in Kenya.

5.3.2 Suggestions for Further Research

This study found that the state of knowledge management is still at the infancy level and is yet to be formally entrenched as part of corporate strategy. The researcher therefore recommends that future research studies may be conducted to assess the general state of knowledge management in another economic sector, industry or across various industries in Kenya. Further research could be done to determine the factors influencing the adoption of knowledge management in the banking sector in Kenya.

REFERENCES

- Alavi, M., & Leidner, D.E. (2001). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly* 25 (1): 107-136. Access from: www.jstor.org
- Asava, L.K. (2009). *Knowledge Management for Competitive Advantage within Commercial Banks in Kenya*. Unpublished MBA project, University of Nairobi.
- Beckman, T.J. (1999). The Current State of Knowledge Management, edited by Jay Liebowitz, *Knowledge Management Handbook*, CRC Press.
- Beesley, L.G.A., & Cooper, C. (2008). Defining Knowledge Management activities: towards a consensus. *Journal of Knowledge Management Vol. 12* No. 3, pp.48-62
- Binney, D. (2001). The Knowledge Management Spectrum - Understanding the Knowledge Management Landscape, *Journal of Knowledge Management*, 5, 1, 33-42.
- Boisot, M.H. (1998). *Knowledge Assets: Securing Competitive Advantage in the Information Economy*, Oxford University Press.
- Bornemann, M., & Sammer, M. (2003). Assessment methodology to prioritize knowledge management related activities to support organizational excellence. *Measuring business excellence* 7 (2): 21-28
- Carlsson, S.A., El Sawy, O.A., Eriksson, I., & Raven, A. "Gaining Competitive Advantage Through Shared Knowledge Creation: In Search of a New Design Theory for Strategic Information Systems," in *Proceedings of the Fourth European Conference on Information Systems*. Lisbon, 1996.
- Central Bank of Kenya. (2009). *Bank Supervision Annual Report*.
- Checkland, P., & Holwell, S. (1998). *Information, Systems and Information Systems*. John Wiley & Sons:Chichester.
- Cross, R., & Weller, S. (2001, March, 31). Winning through Knowledge (Knowledge Management in Banks). *Financial World*, 19, UK.
- Curado, C. (2008). Perceptions of Knowledge Management and Intellectual Capital in the Banking Industry, Lisbon. In *Journal of Knowledge Management Vol. 12* No. 3, pp.141-155
- Davenport, R.H., & Prusak, L. (1998). *Working Knowledge*, Harvard Business School Press, Boston.

- Day, J.D., & Wendler, J.C. (1998, Winter). Best Practice and Beyond: Knowledge Strategies, *McKinsey Quarterly*, 1, 19-25.
- Demarest, M. (1997). *Understanding Knowledge Management*. Long Range Planning, 30(3), 374-384.
- Drucker, P. (1993). *Post-Capitalist Society*. Harper Collins, New York, NY.
- Drucker, P. (1995). *Managing in a Time of Great Change*. Truman Alley Books – Dutton: New York.
- Earl, M. (2001). KM Strategies: Towards a Taxonomy, *Journal of Management Information Systems*, Vol. 18 No. 1, pp. 215-233.
- Fourie, L. C. H., Schilawa, J., & Cloete, E. (2004). *The value of concept maps for knowledge management in the banking and insurance industry: A German case study*.
- Grant, R.M. (1996, July-August). *Prospering in Dynamically Competitive Environments: Organizational Capability as Knowledge Integration*, *Organizational Science*, pp. 375-387.
- Grant, R.M. (1996, Winter Special Issue). Towards a Knowledge Based Theory of the Firm, *Strategic Management Journal* (17), pp. 109-122.
- Haggie, K., & Kingston, J. (2003, June). Choosing Your Knowledge Management Strategy, *Journal of Knowledge Management Practice*.
- Harari, O. (1994, June). The Brain Based Organization, *Management Review*, 83:6, pp. 57-60.
- KPMG. (1998a). *Management Consulting. Case Study: Building a platform for corporate knowledge*.
- Macintosh, A. (1999). *Knowledge Management*. Edinburgh: Artificial Intelligence Applications Institute. Retrieved from <http://www.aii.ed.ac.uk/~alm/kamlnks.html#approach>
- Malhotra, Y. (2001). *Knowledge Management for the New World of Business*. New York BRINT Institute. Retrieved from <http://www.brint.comlkm/whatis.htm>
- Malhotra, Y. (2005). Integrating Knowledge Management Technologies in Organizational Business Processes: Getting Real Time Enterprises to Deliver Real Business Performance, *Journal of Knowledge Management* Vol. 9 No. 1, pp. 7-28.
- Manasco, B. (1996, October). *Leading Firms Develop Knowledge Strategies*. Knowledge Inc. Marshall, A. (1965). *Principles of Economics*. London: Macmillan.

- McAdam, R., & McCreedy, S. (1999). A critical review of knowledge management models. *The learning organization* 6, no.3:91-100.
- Mizintseva, M.F., & Gerbina, T.V. (2009). Knowledge Management Practice: Application in Commercial Banks. *Scientific and Technical Information Processing, Vol. 36* No. 6, pp. 309-318.
- Movizzo, J. (1995). *Executive summary introduction to The Learning Organization: Managing Knowledge for Business Success*. The Economist Intelligence Unit & IBM Consulting Group: NY.
- Muriani, C.K. (2008). *A Survey of Knowledge Management Structures among Internet Service Providers in Kenya*. Unpublished MBA project, University of Nairobi.
- Nelson, R.R., & Winter, S.G. (1982). *An Evolutionary Theory of Economic Change*. Belkap Press, Cambridge, MA.
- Nickols, F. (2000). The Knowledge in Knowledge Management, *The Knowledge Management Yearbook 2000-2001*, ed. J.W. Cortada and J.A. Woods, Butterworth Heinemann, 12-21.
- Nonaka, I. (1994). "A Dynamic Theory of Organizational Knowledge Creation", *Organization Science*, pp. 14-37.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creating Company: How the Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.
- Nyawade, F.O. (2005). *Employee Perception of Knowledge Management Practices: A Case Study of BAT Kenya*. Unpublished MBA project, University of Nairobi.
- Osano, K.O. (2007). *Knowledge Management within Publicly Quoted Firms in Kenya*. Unpublished MBA project, University of Nairobi.
- Pentland, B.T. (1995). Information systems and organizational learning: *The social epistemology of organizational knowledge systems, accounting, management and information technologies* (5:1), pp.1-21
- Robertson, J. (2004, August). Developing a knowledge management strategy. *KM Column. Standards Australia: Broadway NSW Australia*
- Rooney, D., Hearn, G., Mandeville, T., & Joseph, R. (2003). *Public policy in knowledge based economies: Foundations and frameworks*. Cheltenham. Edward Elgar.
- Scarborough, H., & Swan, J. (1999). *Case Studies in Knowledge Management*. Institute of Personnel and Development.

- Seemann, P., Long, D.D., Stucky, S., & Guthrie, E. (1999). *Building Intangible Assets: A Strategic Framework for Investing in Intellectual Capital*. Second International Conference on the Practical Application of Knowledge Management, 21-23 April.
- Sieloff, C. G. (1999). "'If only HP knew what HP knows": the roots of knowledge management at Hewlett-Packard." *Journal of Knowledge Management* 3 (1): 47-53.
- Spender, J.C. (1996). Making Knowledge the Basis of a Dynamic Theory of the Firm, *Strategic Management Journal* (17), Special Issues, pp 45-62
- Stewart, T. (1998, October). Knowledge, The Appreciating Commodity, *Fortune*, pp. 199-200.
- Treacy, M., & Wiersema, F. (1993, January-February). Customer Intimacy and Other Value Disciplines, *Harvard Business Review*.
- Tuomi, I. (1999). "Data is more than Knowledge: *Implications of the Reversed Hierarchy of Knowledge Management and Organizational Memory*," in Proceedings of the thirty Second Hawaii International Conference on Systems Sciences, IEEE Computer Society Press, Los Alamitos, CA.
- Wangari, E. (2009). *A Study of the Linkage of Critical Success Factors and Knowledge Management Systems at Olivado Kenya (EPZ) Ltd*. Unpublished MBA project, University of Nairobi.
- Wiig, K.M. (1997). Knowledge Management: Where Did It Come From and Where Will It Go?, *Expert Systems with Applications*, 13, 1, 1-14.
- Wikipedia, Knowledge [online], available from:
<http://www.en.wikipedia.org/wiki/knowledge>
- Zack, M.H. (1999, Spring). Developing a Knowledge Strategy. *California Management Review*, 41, 3, 125-145.

APPENDICES

Appendix I: List of Banks

1. Africa Banking Corporation Ltd
2. Bank of Africa Ltd
3. Bank of Baroda Ltd
4. Bank of India
5. Barclays Bank of Kenya
6. CFC Stanbic Bank Ltd
7. Chase Bank Ltd
8. Citibank N.A. Kenya
9. City Finance Bank
10. Commercial Bank of Africa Ltd
11. Consolidated Bank of Kenya Ltd
12. Co-operative Bank of Kenya
13. Credit Bank Ltd
14. Development Bank of Kenya Ltd
15. Diamond Trust Bank Ltd.
16. Dubai Bank Ltd.
17. Ecobank Ltd
18. Equitorial Commercial Bank Ltd
19. Equity Bank Ltd
20. Family Bank Ltd
21. Fidelity Commercial Bank Ltd
22. Fina Bank Ltd
23. First Community Bank Ltd
24. Giro Bank Ltd
25. Guardian Bank
26. Gulf African Bank Ltd
27. Habib AG Zurich
28. Habib Bank Ltd
29. I & M Bank Ltd
30. Imperial Bank Ltd
31. Jamii Bora Bank
32. Kenya Commercial Bank Ltd
33. K-Rep Ltd
34. Middle East Bank Ltd
35. National Bank of Kenya Ltd
36. NIC Bank Ltd
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank Ltd
40. Southern Credit Banking Corporation Ltd
41. Standard Chartered Bank Ltd
42. Trans-National Bank Ltd
43. UBA Kenya Bank Ltd
44. Victoria Commercial Bank Ltd

Source: CBK Bank Supervision Annual Report 2009

Appendix II: Introduction Letter

Joash Cheruiyot Rono
C/O University of Nairobi
NAIROBI

May 5th, 2011

Dear respondent

REQUEST FOR RESEARCH DATA ON KNOWLEDGE MANAGEMENT PRACTICES BY COMMERCIAL BANKS IN KENYA

I am a post graduate student in the School of Business at the University of Nairobi, undertaking a survey on the Knowledge Management Practices by Commercial Banks in Kenya, in partial fulfilment of the requirement for the award of a Master of Business Administration (MBA) degree.

In this regard, I kindly request for your assistance in completing the attached questionnaire to the best of your knowledge. The information you give will be treated with strict confidence and is solely for academic purposes. Even where a name is given, it will not under any circumstances appear in the final report. A copy of the final report will be availed to you upon request.

Your assistance and co-operation will be highly appreciated.

Thank you

Joash Cheruiyot Rono

Appendix III: Questionnaire

Part 1

1. What is the name of your bank

2. How many branches does your bank have in Kenya?

.....

3. How old is your bank?

Less than five years ()

5 – 10 years ()

10 - 20 years ()

Over 20 years ()

4. How many employees does your bank have?

.....

5. What is your position in the bank?

Top management ()

Middle management ()

Lower management ()

6. Kindly indicate your age bracket

20 – 30 years ()

31 - 40 years ()

41 - 50 years ()

Over 50 years ()

7. How long have you worked in the bank?

.....

8. How long have you worked in the current position?

.....

9. Are you conversant with the term Knowledge Management?

.....

Part 2

10. Kindly indicate the extent to which the following statements apply as regards Knowledge Management in your bank.

<i>Statement</i>	Yes	No
There is a knowledge management strategy in place		
There is a special unit or department accountable for knowledge management		
There is a knowledge management leader/manager		
There is a dedicated budget for knowledge management		
Knowledge management is among your core values		

11. HR Practices Related to Knowledge Management

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant
	1	2	3	4	5
Recruitment and selection based on candidates ability to collaborate and share knowledge					
Training focus on acquiring new knowledge					
Training focus on changing employees attitude to promote a knowledge sharing culture					
Individuals rewarded for teamwork and knowledge sharing					
Employees promoted on ability to collaborate with other staff					
Good KM behavior monitored and built into appraisal system					
Employees are given time for knowledge sharing activities					
Employees leaving bank are encouraged to run classes to transfer their knowledge					

12. Knowledge Creation/Conversion Processes

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant
	1	2	3	4	5
Socialization (conversion of tacit knowledge to new tacit knowledge through social interaction and shared experience among organizational members e.g. apprenticeship)					
Externalization (conversion of tacit knowledge to new explicit knowledge e.g. articulating best practices or lessons learned)					
Internalization (creation of new tacit knowledge from explicit knowledge e.g. through learning and understanding resulting from reading or discussion)					
Combination (creation of new explicit knowledge by merging, categorizing, reclassifying and synthesizing existing explicit knowledge e.g. literature survey reports)					

13. Modes of Developing Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant
	1	2	3	4	5
On-the-job training					
Teamwork					
One-to-one conversation					
Brainstorming sessions					
Training with internal and external experts					
Suggestion box					
Maintain a directory of people's skills so that others can have access					
Employees writing a report after training					
Enterprise resource planning					

14. Modes of Retaining Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant
	1	2	3	4	5
Best practices					
Employee retention strategies					
Document Management System					
“Lesson learned” reports					
Decision Support System					
Expert System					
Groupware					

15. Modes of Sharing and Distributing Knowledge

	Not relevant at all	Not so relevant	Neutral	Relevant	Very relevant
	1	2	3	4	5
On-the-job training					
E-mails					
Intranet					
Job rotation					
One-to-one meetings					
Telephones					
Newsletters					
Employee self service					
Video conference					

16. Do you have any other comments on knowledge management in your bank that you may consider relevant for this study?

Your participation is highly appreciated!