EFFECT OF KNOWLEDGE MANAGEMENT CAPABILITIES ON COMPETITIVE ADVANTAGE IN THE KENYA HOSPITALITY INDUSTRY: THE CASE OF FIVE STAR HOTELS IN KENYA

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ABSTRACT

Many Kenyan business establishments have started implementing knowledge management programs in their organizations. However, knowledge management in the hospitality industry has not accomplished the same scale of applications and empirical research as in other fields, particularly in the Kenyan hospitality industry. Less optimistically, the industry has unique characteristics that impact on its potential sustainability. The majority of hotels in Kenya operate with limited resources and tend to focus on day-to-day business operations. They are also bogged with high turnover rate of employees who leave the industry with tacit knowledge. The institutions have to make do with fresh recruits it hires with no explicit knowledge in hotels operation. The purpose of this study was to establish the effect of knowledge management capabilities on the competitive advantage of five star hotels in Kenya. The study specifically focused on how technology KM infrastructure capability, social KM infrastructure capability, KM process capability and KM innovation agility affect the competitive advantage of five star hotels in Kenya. A descriptive research design was applied in this study. A total of 313 management staff in the five star hotels in Nairobi formed the possible respondents of this study. A sample of 172 respondents was taken using stratified random sampling across the top, middle level and low level management staff. From each stratum, simple random sampling was employed to pick the respondents. Primary data was collected through the use of structured questionnaires. The researcher analyzed the quantitative data using descriptive statistics by applying the statistical Package for Social Science (SPSS V.21.0) and presented through percentages, means, standard deviations and frequencies. In addition, the researcher conducted a multiple regression analysis so as to determine the effects of each of the four variables on competitive advantage. With regard to the Hotel's organizational structure, the study established that organizations design processes to facilitate knowledge exchange across functional boundaries. Regarding measures of People (T-shaped Skills), the study established that organization's members are specialists in their own field of expertise and that organization's members can make suggestions about others tasks. With regard to the conversion process, the study established that organization has processes for absorbing knowledge from individuals into the organization. Concerning competitive advantage, the study established that organization uses knowledge management to widen the array of products without increasing costs. The study concludes that at the hospitality industry, organizations design processes to facilitate knowledge exchange across functional boundaries. This study recommends that this understanding be utilized to ensure that the relevant information regarding the organization and the industry be provided to employees at all time and specifically

provided on time. Since there is a 36% error term, other studies should be done to investigate the effect of knowledge management capabilities on the competitive advantage by other organizations on different industries rather than the hospitality industry. Examples of such industries like insurance and banking would be ideal. The study can be done by focusing on different variables not tackled in this study.

Key Words: *Social perspective, Technical perspective, Process capability, Innovation Agility, Knowledge Management Capabilities, Competitive Advantage*

INTRODUCTION

Knowledge management (KM) is a process of gathering, managing and sharing employees' knowledge capital throughout the organization to ensure organizational effectiveness. According to Kelleher and Levene (2009), knowledge sharing throughout the organization enhances existing organizational business processes, introduces more efficient and effective business processes and removes redundant processes. It is a discipline that promotes a collaborative and integrated approach to the creation, capture, organization access and use of an enterprise's knowledge assets. With new economy increasingly becoming a more knowledge-based economy, knowledge is becoming the most important asset for organizational success among other assets such as capital, materials, machineries, and properties (Kelleher & Levene, 2009).

Moustaghfir and Schiuma (2013) contend that the basic economic source in Africa would no longer be capital or natural resources or even labor but knowledge. The information technology boom has caused organizations in Africa to realize the shift from the resource economy of controlling land, labour and capital to the knowledge economy of creating business value through the utilization of intangible knowledge. This has caused knowledge management to be of crucial importance in the public sector as well as the private sector both for organizations as well as for individuals. However one of the key concerns that have emerged related to knowledge management is how to accomplish it successfully.

Bosua and Venkitachalam (2013) argue that business performance in South Africa is determined by organization's level of knowledge-creation, and organization's ability to recycle new knowledge and use it to improve future knowledge-creation activities. Nigeria has experienced the increased economic cooperation and integration policies that have created a more intensive and dynamic competition landscape in the country. This situation provides both great opportunities and daunting challenges for businesses, especially with regard to entrepreneurship. To survive and develop, businesses should consider developing a proactive strategy towards new resources and capabilities to achieve and sustain a CA (Abdelqader, Abu & Al Sakarneh, 2013).

Knowledge management is indispensable in Kenya because companies 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 (Desouza, 2011). 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 finance markets are equally open to both big and small players.

According to Heisig (2014) KM capability is the ability to mobilize and deploy KM-based resources in combination with other resources and capabilities. Organizations must develop KM capabilities to help support a variety of important organizational operations and activities. Epetimehin and Ekundayo (2011) were among the first scholars in the field of KM to provide a comprehensive model of KM capability dimensions from the perspective of organizational capabilities. According to this model, the KM capability of a firm includes two key components: knowledge management infrastructure capabilities (KMIC) and knowledge management process capabilities (KMPC). KMIC includes technology, structure and culture, while KMPC is comprised of acquisition, conversion, application and protection processes. Taken together, these resources determine the KM capability of an organization (Young, Smith & Grimm, 2012). Epetimehin and Ekunday, (2011) examined an empirically effective KM model from the perspective of organisational capabilities. This perspective suggests that a knowledge infrastructure, consisting of technology, structure and culture, along with knowledge process architecture of acquisition, conversion, application and protection, are essential organizational capabilities or preconditions for effective KM.

According to Olatokun and Nwafor (2012), traditional measurement techniques that emphasize solely on financial performance can be misleading and counter-productive in a development environment. Hence, it is essential to adopt a measurement approach that can holistically evaluate the outcomes of KM. Carneiro (2011) suggested that besides using financial indicators, organizations can adopt non-financial ones to measure the outcomes of KM. Hotels around the world are classified based on different system of classifications. The star classifications system of Hotels is common in many countries. The higher the star rating of the Hotel indicates the higher luxury. Hotels in Kenya are classified in star-rating system that includes 5-star the higher luxury, 4 –star Hotels, 3-star Hotels, 2-star Hotels and 1-star Hotels. The entity in charge of determining the conditions by which Hotels will be accountable and which will determine whether they receive one or five star is the World Organization of Tourism, Johanna (2010).

According to Johanna (2010), currently every Country tends to have its own rules and requirements for determining Hotel classifications in spite of the recognized body. This brings inconsistencies of the tar-classification of Hotels. Hotels assessment is based on the facilities they have and the service quality they offer. According to the Kenya gazette, 13 June, 2015, vol. cv-no.62, there are 13 five star Hotels in Nairobi, Kenya in June. The classification base is star-rating. The Ministry of Hotel and Tourism of Kenya is mandated to give this classification- rate. The five star Hotels are the most luxurious ones in the market of Hospitality industry in Nairobi Kenya. According to the information source, the name for each star Hotel is 1- star (Tourist), 2-star (Standard), 3- star (Comfort), 4- star (first class) and 5-star (luxury).

STATEMENT OF THE PROBLEM

The hotel industry is one of the main components of tourism and as such is one of the most promising sectors in Kenya; therefore there is a need for good strategies to enable it to meet the economic agenda of the nation. Overall, there is an increase in the number of hotels in Kenya; as reported by Kenya Tourism Board (2014) there were 3,173 hotels in 2015 compared to 2,492 in 2010. As a result of this increasing number of hotels and competition from other hotels in the region, competition has become very stiff among hoteliers, which influences the level of the average occupancy rate. Further the average occupancy rate fluctuated but settled at approximately 33.7% in 2015 from 40.3% in 2011 (appendix III). Therefore, to be competitive, they must pay more attention to the needs and wants of the customers, as well as recognizing internal factors to improve their occupancy rate. In summary, hotels must implement suitable strategies such as KM to face the strong competition in the market and consequently improve their performance, increase occupancy rates and achieve profit.

Many Kenyan business establishments have started implementing knowledge management programs in their organizations. However, literature on knowledge management practices and empirical studies in the hospitality industry is scarce as opposed to other sectors such as the study on KM infrastructure capability, motivation and performance in mobile telecommunication firms in Kenya (Senaji, 2012); whose finding was a positive and significant influence of KM infrastructure on organizational effectiveness. Less optimistically, the industry has unique characteristics that impact on its potential sustainability. Further, Broader considerations such as the exploitation of market intelligence of the pursuit of strategic management tend to be treated as options. Accordingly, each hotel business or cluster of such businesses may need to follow different strategic path options to knowledge management. In such circumstances, an understanding of the potentially strategic dimension to knowledge management could help hotels to break the vicious circle of resource constraints and market vulnerability by enabling them to compete on more sustainable terms. However, there is little in the literature that would assist either researchers or practitioners in gaining understanding of the operation of knowledge

management in the hotel sector. This notwithstanding, the nature and forms of the enabling KM capabilities with respect to the service sector have not been sufficiently brought to the fore.

Little, if any, has been done on the effect of knowledge management capabilities on competitive advantage. For instance, Bennett and Gabriel (2010) studied various knowledge management methods in view of organizational structure, culture, size, and environment. Kiessling et al. (2009) concluded there is an inter-relationship between the enablers and competitive advantage, therefore combination of various enablers should not be treated as by chance – instead it should be treated as a whole system. Locally, Murianki (2010) conducted a survey of knowledge management structures among Internet Service Providers (ISP) In Kenya while Asava (2009) did a study on knowledge management for competitive advantage within commercial banks in Kenya. However, nobody seems to account for the knowledge that the hotels require for present and future needs, how to acquire that knowledge, the kind of knowledge that individual employees in the industry possess and how to share such knowledge with others.

OBJECTIVE OF STUDY

The main objective of the study was to establish the effect of knowledge management capabilities on the competitive advantage of five star hotels in Kenya.

SPECIFIC OBJECTIVES OF STUDY

1. To assess the effect of social KM infrastructure capability on competitive advantage of five star hotels in Kenya.
2. To establish the effect of technology KM infrastructure capability on competitive advantage of five star hotels in Kenya.
3. To determine the effect of KM process capability on competitive advantage of five star hotels in Kenya.
4. To establish the effect of KM innovation agility on competitive advantage of five star hotels in Kenya.

LITERATURE REVIEW

Porter Five Forces Model

Porter's (1985) model identifies the forces that influence competitive advantage in the marketplace. Of greater interest to most managers is the development of a strategy aimed at establishing a profitable and sustainable position against these five forces (Kamhawi, 2012). To establish such a position, a company needs to develop a strategy of performing activities differently from a competitor. Porter states that in order to do an industry analysis a firm must analyse five competitive forces (Baltzan & Phillips 2010): rivalry of competitors within its

industry, threat of new entrants into an industry and its markets, threat posed by substitute products which might capture market share, bargaining power of customers and bargaining power of suppliers. To survive and succeed, a business must develop and implement strategies to effectively counter the above five competitive forces. O'Brien and Marakas (2011) suggest that organizations can follow one of five basic competitive strategies, which are based on Porter's three generic strategies of broad cost leadership, broad differentiation, and focused strategy. The five competitive strategies are: cost leadership, differentiation, innovation, growth, and alliance. Meanwhile, information systems could be a critical enabler of these five competitive strategies.

According to Kamhawi (2012), porter's model has been used to develop strategies for companies to increase their competitive edge and it also demonstrates how IT can enhance the competitiveness of corporations. It seems that two types of competitive advantage, lower cost and differentiation, are mutually exclusive. Another point of Porter's is that competitive advantage is gained through a strategy bases on scope. It is necessary to look at the breadth of a firm's activities, and narrow the competitive scope to gain focus in an industry segment, a geographic area, a customer type, and so on. Competitive advantage is most readily gained by defining the competitive scope in which the firm is operating, and concentrating on it.

According to Porter (2001), informational resources in the 21st competitive era is important and inevitable too because they allow firms to perform activities that create advantages in particular markets. The competitive value of resources can be enhanced or eliminated by changes in technology, competitor behavior, or buyer needs which an inward focus on resources will overlook. According to Porter 1990), innovation is a new way of doing things that is commercialized. The new knowledge (Paquette & Desouza, 2011) can be technological or market related. Technological knowledge refers to components, processes, and linkages that contribute to an output. Market knowledge refers to the expertise of the specific market dynamics such as distribution channels and customer expectations.

Resource-Based View Theory

Recent developments in the resource based view (RBV) suggest that capabilities are an important contributor to organizational performance (Tippins & Sohi, 2003). Capabilities refer to an organization's ability to assemble, integrate, and deploy valued resources (Desouza & Paquette, 2011). They are rooted in processes and business routines. Chen, Wang and Lin (2011) describe a hierarchy of organizational capabilities, where specialized capabilities are integrated into broader functional capabilities such as marketing, manufacturing, and IT capabilities. Functional capabilities in turn integrate to form cross functional capabilities such as new product development capability, customer support capability, etc.

The currently dominant view of business strategy resource-based theory or resource-based view (RBV) of firms by Payal and Debnath (2015) is based on the concept of economic rent and the view of the company as a collection of capabilities. This view of strategy has a coherence and integrative role that places it well ahead of other mechanisms of strategic decision making (Rasmussen & Nielsen, 2011). A resource-based view emphasizes that a firm utilizes its resources and capabilities to create a competitive advantage that ultimately results in superior value creation and achieve organizational effectiveness. In order to achieve organizational effectiveness the firm must allocate its resources and capabilities wisely against competing needs as a result of changing business environment. RBV depicts companies as a collection of resources and capabilities required for product or market competition. Resources are the physical capital, human capital, and organizational capital owned or controlled by a firm that can be used to conceive of and implement strategies (Kianto, Ritala, Spender & Vanhala, 2014).

KM is viewed from the perspective of organizational capability as organising and making available important knowledge wherever and whenever it is needed. The resource-based view, the knowledge-based view and organizational learning theory are used as underlying theories for this research. According to resource-based views, firms perform well and create value when they implement strategies that exploit their internal resources and capabilities. With the growth of strategic management theory, there has been considerable interest in focusing on intangible resources or Intellectual Capital (IC) and their deployment in the firm (Inkinen, Kianto & Vanhala, 2015). Resource-based theorists consider IC to be a firm's strategic resource. A firm's absorptive capacity could be enhanced through KM processes that allow the firm to acquire, convert and apply existing and new knowledge by adding value to the Social Capital while remaining competitive in the market.

Organizations would bank much on the resources they own to be able to create and completion against the rival companies. Qualified human capital, appropriate ICT infrastructure, sufficient equipment and availability of raw materials would be key for a firm to model a competitive strategy and be successful (Kianto, Ritala, Spender & Vanhala, 2014). A firm strength lies primarily in the application of a bundle of valuable tangible or intangible resources at the firm's disposal. To transform a short-run competitive advantage into a sustained competitive advantage requires that these resources are heterogeneous in nature and not perfectly mobile. Effectively, this translates into valuable resources that are neither perfectly imitable nor substitutable without great effort (Rasmussen & Nielsen, 2011). If these conditions hold, the bundle of resources can sustain the firm's above average returns which will allow the firm to achieve economies of scale (to produce better quality and sale large quintiles at a competing price which is lower than that of rival firms).

Cognitive Learning Theory

This theory states that humans generate knowledge and meaning through sequential development of an individual's cognitive abilities, such as the mental processes of recognize, recall, analyze, reflect, apply, create, understand, and evaluate. The Cognitivists' (Malkawi & Abu, 2016) learning process is adoptive learning of techniques, procedures, organization, and structure to develop internal cognitive structure that strengthens synapses in the brain. The learner requires assistance to develop prior knowledge and integrate new knowledge. The purpose in education is to develop conceptual knowledge, techniques, procedures, and algorithmic problem solving using Verbal/Linguistic and Logical/Mathematical intelligences. The learner requires scaffolding to develop schema and adopt knowledge from both people and the environment. The educators' role is pedagogical in that the instructor must develop conceptual knowledge by managing the content of learning activities. The theory insists that the learner is expected to use skill and knowledge obtained during learning to solve problems in real life situations (Bharadwaj, Chauhan, & Raman, 2015).

According to Joel (2011), organizational learning denotes a change in organizational knowledge and it typically adds to, transforms, or reduces the organizational knowledge. He further argues that organizational learning theories attempt to understand the processes which lead to (or prevent) changes in organizational knowledge, as well as the effects of learning and knowledge on behaviors and organizational outcomes. When an organization has a well-qualified human capital, its ability to compete improves since the employees are capale of ringing in new ideas learned or observed elsewhere that are meant to improve value creation to its customers. The employees are capable of sharing the ideas among themselves. Sharing existing knowledge and creating new knowledge would make a company competitively successful. Three main practices in the knowledge management process include creating and discovering, sharing and learning, and organizing and managing which when embraced by the organization workforce members would lead to reduced information asymmetry in job delivery which is positively related to company returns and creation of more value (Easterby-Smith & Lyles, 2013). The core learning-related idea was that organizations experience recurrent decision situations, and, in response, develop performance programs, that is, highly complex and organized sets of responses. Organizations adapt many things, including past performance and performance of reference groups. The outcome is that program adaptation is a result of random encounters with improvement opportunities.

Socio-Technical Theory

Knowledge management capabilities can be classified according to a socio-technical theory postulated by Bostrom and Heinen (1977). Socio-technical theory assumes that an organization or an organization work system can be described as a social-technical perspective. According to

this perspective, we can identify that enablers are made up of two jointly independent but correlative interacting systems. Two sometimes conflicting set of values underlie much socio-technical thinking (Liebowitz, 2012). The first is a belief is the importance of humanistic principles. The main task of the designer is to enhance the quality of working life and the job satisfaction of the employee. In turn the achievement of these objectives will enhance productivity and yield added value to the organization. The second set reflects managerial values. Socio-technical principles are merely instruments for achieving primarily economic objectives. Humanistic objectives have no value in themselves but if their achievement produces a better performance from employees leading to the fulfillment of the economic objectives well and good. This conflict has led to suspicion of socio-technical ideas by managers and employees as represented, for example, by trade unions.

Nevertheless, socio-technical ideas permeate much IS thinking even if not always referred to as such (Matos & Miguel, 2013). In any organization, the employees are supposed to contribute towards value creation to the company. This would mainly be achieved when the employees are left to work freely to socialize and find some belonging to each other (Liebowitz, 2012). This creates sense of social fulfillment and security for the employees among each other and is positively related to building up a strong workforce that is trustworthy. This will alone create social motivation and cohesion at work, less disagreements and quarrels and job delivery. Management of the firm will take strength at the employees social set up in the work environment to gather what the employees say motivates them. It creates an open space for the management to observe their employees and be able to tell what can be done or improved for them even to hit and supers their targets (Matos & Miguel, 2013).

This is in itself crucial because management ought to understand their workforce members which would lead to a strong workforce, therefore improved firm's economic returns that would eventually lead to creating and sustaining competitive advantage. The technical system is concerned with processes, tasks, and technology. The social system is concerned with attributes of people, relationships among people, reward systems, and authority structures (Alexy & Reitzig, 2012). Organizational structure, organizational culture, and people are considered as a social system, and information technology is considered as a technical system in this study.

Dynamic Theory of Organizational Knowledge Creation

The goal of this theory postulated by Nonaka (1994) is also to apply knowledge management to develop and use the intellectual asset in the organization and to improve organizational performance. In this context, organizational performance is defined as 'corporate sustainability' and 'sustainable innovation'. It is based on a bottom-up view with respect to knowledge management in which humans are able to self-organize around the production, diffusion and use of new knowledge (Baltzan & Phillips, 2010). In other words, he claims that knowledge

management cannot be effectively managed top-down as proposed by the other theories. This self-organization will result in a process that is capable of continuous or sustainable innovation. To achieve this state of business, McElroy defines a number of policies. He claims that organizations that apply these policies can achieve corporate sustainability and sustainable innovation. This may be regarded as a very promising and interesting claim.

The main thought behind the epistemic hierarchy is the fact that knowledge management cannot directly influence business processes, but that it can only influence the knowledge processes of the knowledge lifecycle that in their turn have an impact on business processes. This hierarchy is addressed in order to indicate the non-linearity that exists between knowledge management investments and interventions on the one hand and business outcomes on the other hand (Baltzan & Phillips, 2010). According to Baltzan and Phillips (2010), strong source of a competitive advantage for any organization is its Research and Development department. New ideas and improvement of the existing ones improves the quality of the products and/or services the organization is offering in the market. If a product or a service is seen a superior one in the market, it penetrates quickly leading to the abandonment of the alternative ones (Chui & Fleming, 2011). This would lead to more sales volume to the company which will make the company more competitive in that it will be able to operate on economies of scale.

Based on this idea, McElroy states that KM should be a separate business function and should not be integrated with for example IT, R&D or HR and not be rooted in the executive function. The KM function should have enforceable authority to allocate resources that enhance knowledge processes. The executive function should only have coordinating responsibilities to the KM business function. This is in line with Bughin, Chui and Johnson (2012), who also identify that many organizations create a separate KM business function. However, they also state that knowledge management is part of everyone's job (Chui & Fleming, 2011). Therefore, it cannot be made the sole responsibility of a KM business function.

CONCEPTUAL FRAMEWORK

Social perspective the KM infrastructure capabilities of a firm encompass three components: organizational structure, organizational culture, and people (or T-shaped skills). Technology within KM can be seen to have evolved through three cumulative and interdependent phases, namely mainframe, personal computers, and networking, among which networking has become the dominant process Information technology (IT) is relevant to KM for a few fundamental reasons.

A process capability in KM is the organization's ability to create new knowledge through the process of converting tacit to explicit knowledge and eventually transforming it to organizational knowledge, and new knowledge stems from a firm's combinative processes. On the other hand,

innovation agility is the ability to explore and exploit which entail experimentation with new ideas, paradigms, technologies, strategies, and knowledge in pursuit of finding new opportunities that are superior to obsolete opportunities. It also includes improving existing ideas, paradigms, technologies, strategies, and knowledge in pursuit of old certainties.

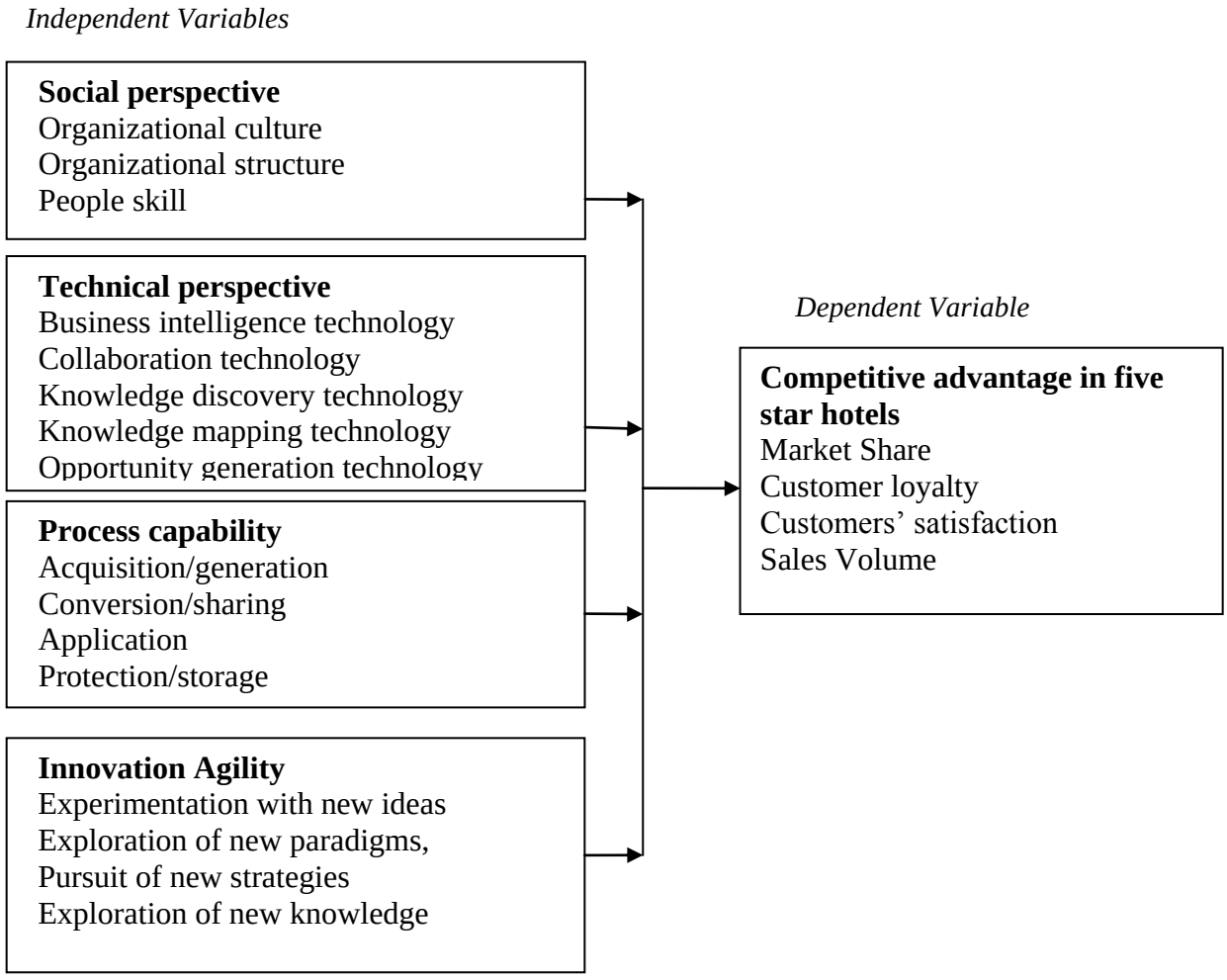

Figure 1: Conceptual Framework

EMPIRICAL REVIEW

Previous empirical studies have investigated the knowledge management capabilities. This category focus on the relationships among the knowledge enablers, the emphasis is on the examination of the effect of knowledge management capabilities for example Gold et al (2011) conducted a study to establish effective knowledge management model from the perspective of organizational capabilities. This perspective suggests that a knowledge infrastructure consisting of technology, structure, and culture along with knowledge process architecture of acquisition, conversion, application, and protection are essential organizational capabilities or preconditions

for effective knowledge management. Batista and Matos (2014) emphasized that knowledge management consists of processes to manage knowledge and enablers (or capabilities) to support these processes. They also argue that knowledge management enablers consist of organizational culture, structure, people, and information technology support.

Abdul (2013) noted that knowledge management helps an organization to gain insight and understanding from its own experience. Specific knowledge management activities help focus organization on acquiring, storing and utilizing knowledge for problem solving, dynamic leaning, strategic planning and decision making. It also prevents intellectual assets from decay, adds to firm intelligence and provides increased flexibility. One task of knowledge management is to help organizations to enhance and expand the innovation process (Karadsheh et al., 2009) to maintain their competitive advantage. According to Okunoye and Bertaux (2011), the benefit and strategic importance of knowledge management is in the ability of an organization to correctly identify which knowledge resources they can improve to gain competitive advantage.

Knowledge management has also been described for its possible role in creating sustainable competitive advantage for organizations (Johannessen &Olsen, 2014). More specifically, the organization must possess the ability to effectively and efficiently exploit the full potential of its resources, in order to develop and maintain any potential competitive advantages (Barney, 1997; Adams & Lamont, 2003). Wright et al (2010) showed that human resources (HR) meet the criteria for being a source of sustainable performance. Coff (2010) discussed that human resources are a main source of sustainable advantage because of causal ambiguity and systematic information making them inimitable. Gratton (2007) also recognized that sources of competitive advantage have turned from financial resources to technology resources and now to human capital. The theory of competence-based competition argues that core competencies are the source of sustainable competitive advantage (Hafeez et al., 2012).

In other words, success of organizations in investigating the sustainable competitive advantage does not depend primarily on the size of the budget or the products supporting technologies. It really depends on employee's attitudes, core competencies and skills (Al-Rfou & Trawneh, 2009). Memon (2009) agrees that the strategic human resources management or the human capital is a means of gaining competitive advantage through one of the most important asset: its people as its crucial wealth, success and competitive advantage of the organization. Thus, to sustain competitive advantage, in other words, is to utilize the knowledge of people to contribute to the organization.

RESEARCH METHODOLOGY

Research Design

This study adopted a case study research design. This design is appropriate because it seeks to describe a unit in context and holistically, delves into detail and digs into context. A descriptive research design is used when data are collected to describe persons, organizations, settings or phenomena. The data collection for descriptive research presents a number of advantages since it can provide a very multifaceted approach using interviews, observations, questionnaires and participation.

Target Population

The target population of this study was 313 management staff in five star hotels based in Nairobi. A section and particularly the top, middle and lower level management staff were used to collect data. The management staff was selected for the study because they play the role of overseeing the formulation and implementation of various strategic decisions and hence were in a better position to give relevant information on the subject matter.

Sample Size and Sampling Procedures

Sample of responding staff was drawn from 313 top, middle and lower level managers from the staff working in the hotels. A sample population of 172 was arrived at by calculating the target population of 313 with a 95% confidence level and an error of 0.05 using the below formula taken from Kothari (2004). For this study, a sample of 172 respondents was taken using stratified random sampling across the top, middle level and low level management staff. From each stratum, simple random sampling was employed to pick the 172 respondents.

$$n = \frac{z^2.N.\partial_p^2}{(N-1)e^2 + z^2\partial_p^2}$$

Where; n = Size of the sample,

N = Size of the population and given as 313, e = Acceptable error and given as 0.05, ∂p = The standard deviation of the population and given as 0.5 where not known, Z = Standard variant at a confidence level given as 1.96 at 95% confidence level.

Data Collection

Data was collected using a structured questionnaire; Primary data was collected using a questionnaire covering the effect of knowledge capabilities on competitive advantage in Kenya. The questionnaire contained both structured and unstructured questions. The open-ended

questions were used to limit the respondents to give variables in which the researcher is interested, while unstructured questions were used in order to give the respondents room to express their views in a more pragmatic manner. The study instruments were distributed among the targeted respondents using various points of reference like the managers of departments. Sufficient support was provided to managers who shared it with the study respondents to understand and answer the questions asked accurately. The questionnaire comprised of questions related to both the dependent and independent variables. To enhance reliability and accuracy of the data, respondents were assisted and facilitated during the questionnaire filling time. This ensured that few questionnaires were rejected.

Pilot Testing

The questionnaire and interview schedule tried out in the field. This was for the purpose of ensuring that data collected was informative, reliable and valid. The study instruments were administered on 20 management staff of the five star hotels outside Nairobi. The items in the questionnaire were tested for content validity and reliability. The study adopted the internal consistency reliability method where Cronbach' alpha was calculate to establish the reliability index of the instruments. All aspects of the questionnaire were pre-tested including question content, wording, sequence, form and layout, question difficulty and instructions. The feedback obtained was used to revise the questionnaire before administering it to the study respondents. The research supervisor and other experts gave their expert views on the comprehensibility, relevance and clarity of the set items in the questionnaire. The logic behind using staff at JKUAT and not the ones that are targeted in the study was in order not to pre-empty what the study is all about to the intended respondents and also not to bother the respondents with the pretest study and actual study. They were asked to validate the instruments on the basis of content and face validity. They helped to ensure that the items in each questionnaire captured the intended information accurately according to the objectives of the study.

Data Analysis and Presentation

The collected data was analyzed using quantitative data analysis methods. Descriptive analysis such as frequencies and percentages was used to present quantitative data in form of tables and graphs. Data from questionnaire was coded and entered into the computer using Statistical Package for Social Science (SPSS Version 21) for analysis. It gave means, standard deviations, correlations and frequency distribution of each independent and dependent variable. The mean, median, percentage, mode and standard deviation are the most commonly used descriptive statistics. Measures of central tendency were used in this study to give a description of the data. Tables, graphs, bars and pie charts were used for further representation. In addition, multivariate linear regression model and correlation analysis were carried out. In addition, the researcher

conducted a multiple regression analysis so as to determine the effects of each of the four variables on competitive advantage. The regression equation was:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where: Y = Competitive advantage; β_0 = Constant; X_1 = Social perspective; X_2 = Technical perspective; X_3 = Process capability; X_4= Innovation Agility and ε =Error Term

FINDINGS AND DISCUSSIONS

Social Knowledge Management infrastructure capability

With regard to organizational structure, the respondents agreed with a mean of 3.9545 and a standard deviation of 1.09872 that their organization designs processes to facilitate knowledge exchange across functional boundaries. Further, the respondents agreed with a mean of 3.8409 and a standard deviation of 1.01025 that their organization managers frequently examine knowledge for errors/mistakes. Also, the respondents agreed with a mean of 3.795 and a standard deviation of 1.09075 that their organization bases our performance on knowledge creation. As well, the respondents agreed with a mean of 3.5909 and a standard deviation of 0.94790 that their organization has a standardized reward system for sharing knowledge. Additionally, the respondents were neutral with a mean of 3.4545 and a standard deviation of 0.99894 to the statement that their organization structure facilitates the creation of new knowledge. Furthermore, the respondents were neutral with a mean of 3.3864 and a standard deviation of 1.99337 to the statement that their organization structure facilitates the transfer of new knowledge across structural boundaries. Additionally, the respondents were neutral with a mean of 3.2955 and a standard deviation of 1.02480 to the statement that their organization structure facilitates the discovery of new knowledge. This shows that the organizational structure of the five star hotels enhance their competitive advantage.

On Organizational Culture, the respondents strongly agreed with a mean of 4.5000 and a standard deviation of 0.47993 that in their organization on-the-job training and learning are valued. This cognitive learning theory states that humans generate knowledge and meaning through sequential development of an individual's cognitive abilities, such as the mental processes of recognize, recall, analyze, reflect, apply, create, understand, and evaluate. The respondents agreed with a mean of 3.7955 and a standard deviation of 0.92960 that in their organization high levels of participation are expected in capturing and transferring knowledge. The respondents also agreed with a mean of 3.6818 and a standard deviation of 1.80037 that in their organization employees understand the importance of knowledge to corporate success. The respondents agreed with a mean of 3.58636 and a standard deviation of 0.784024 in their organization overall organizational vision is clearly stated. As well, the respondents agreed with a mean of 3.3409 and a standard deviation of 0.88772 that in their organization overall

organizational objectives are clearly stated. Further, the respondents were neutral with mean of 3.0000 and a standard deviation of 1.07833 that in their organization senior management clearly supports the role of knowledge in our firm's success.

With regard to measures of people (T-shaped Skills), the respondents agreed with a mean of 4.3409 and a standard deviation of 0.80531 that their organization's members are specialists in their own field of expertise. As well, the respondents agreed with a mean of 3.6818 and a standard deviation of 0.80037 that their organization's members can make suggestions about others tasks. Additionally, the respondents were neutral with a mean of 2.6136 and a standard deviation of 1.16571 to the statement that their organization's members can perform their own task effectively without regard to environmental changes. The respondents additionally disagreed with a mean of 2.0227 and a standard deviation of 1.19083 that their organization's members can understand not only their own tasks but also others tasks. Lastly, the respondents disagreed with a mean of 2.2727 and a standard deviation of 1.01989 that their organization's members can communicate well not only with their department members but also with other department members. This implies that the human resource of the five star hotels enhance their competitive advantage.

Technical Knowledge Management infrastructure capability

The respondents agreed with a mean of 3.9091 and a standard deviation of 0.8844 their organization uses technology that allows employees to collaborate with other persons inside the organization. The respondents agreed with a mean of 3.8864and a standard deviation of 0.61817 that their organization uses technology that allows people in multiple locations to learn as a group from a single source or at a single point in time. Additionally, the respondents agreed with a mean of 3.8182 and a standard deviation of 89632 that their organization uses technology that allows it to map the location (e.g. an individual, specific system, or database) of specific types of knowledge. The respondents agreed with a mean of 3.7955 and a standard deviation of 0.82348 that their organization uses technology that allows employees to collaborate with other persons inside the organization. Lastly, the respondents agreed with mean of 3.6591 and a standard deviation of 0.77589 that their organization uses technology that allows people in multiple locations to learn as a group from a multiple source or at multiple points in time.

Knowledge Management Processes Capability

The respondents agreed with a mean of 4.3462 and a standard deviation of 0.64722 that their organization has processes for exchanging knowledge between individuals. As well, the respondents agreed with a mean of 4.0227 and a standard deviation of 0.62835 that their organization has processes for acquiring knowledge about new products/services within their industry. Further, the respondents agreed with a mean of 3.9318 and a standard deviation of

0.78940 that their organization has processes for generating new knowledge from existing knowledge. In addition, the respondents agreed with a mean of 3.8515 and a standard deviation of 1.06526 that their organization has processes for distributing knowledge throughout the organization. The respondents agreed with a mean of 3.7727 and a standard deviation of 0.96119 that their organization has processes for acquiring knowledge about our customers. Additionally, the respondents agreed with a mean of 3.5764 and a standard deviation of 0.77350 that their organization has processes for acquiring knowledge about our suppliers.

The respondents agree with a mean of 3.8115 and a standard deviation of 1.00135 that their organization has processes for absorbing knowledge from individuals into the organization. Furthermore, the respondents agreed with a mean of 3.7262 and a standard deviation of 0.62153 that their organization has processes for filtering knowledge. Moreover, the respondents agreed with a mean of 3.7921and a standard deviation of 0.62612 that their organization has processes for integrating different sources and types of knowledge. Additionally, the respondents agreed with a mean of 3.6127and a standard deviation of 1.13133 that their organization has processes for transferring organizational knowledge to individuals. Further, the respondents agreed with a mean of 3.5196 and a standard deviation of 0.64135 their organization has processes for organizing (storing/filing) knowledge.

Innovation Agility

The respondents indicated with a mean of 4.5353 and a standard deviation 1.03562 that exploration of new paradigms affects the competitive advantage at their hotel to a very great extent. The respondents indicated with a mean of 3.8636 and a standard deviation of 0.67392 that experimentation with new ideas affects the competitive advantage at their hotel to a great extent. Additionally, the respondents indicate with a mean of 3.7467 and a standard deviation of 0.93658 that exploration of new knowledge affects the competitive advantage at their hotel to a great extent. Lastly, the respondents indicated with mean of 3.5252 and a standard deviation of 0.83547 that pursuit of new strategies affects the competitive advantage at their hotel at a great extent.

Competitive Advantage

The respondents agreed with a mean of 4.3532 and a standard deviation of 1.03748 that their organization uses knowledge management to widen the array of products without increasing costs. Additionally, the respondents agreed with a mean of 3.9563and a standard deviation of 0.83583 that the knowledge management capability in the organization would be difficult and expensive for rivals to duplicate. Lastly, the respondents agreed with a mean of 3.6747 and a standard deviation of 0.67259 that their organization’s market position can provide strong barriers to entry for other firms.

Table 1: Summary of Regression

Model	R	R Square	Std. Error of the Estimate	R Square Change
1	0.809	0.655	0.643	0.115

The adjusted R2 was used to establish the predictive power of the study model and it was found to be 0.643 implying that 64.3% of the variations in competitive advantage of five star hotels is explained by technical KM, KM Social infrastructure, KM process and KM innovation agility leaving 35.7% percent unexplained.

Table 2: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	3.041	4	.760	55.929	0.000
	Residual	1.604	118	.014		
	Total	4.645	122			

The probability value of 0.00 indicates that the regression relationship was highly significant in predicting how technical KM, KM Social infrastructure, KM process and KM innovation agility affected competitive advantage of five star hotels. The F calculated at 5 percent level of significance was 55.929 since F calculated is greater than the F critical (value = 2.4495), this shows that the overall model was significant.

Table 3: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.351	.432		3.127	.0022
	Technical KM	.722	.196	.146	3.684	.0003
	Social KM	.663	.113	.126	5.867	.0000
	KM process	.873	.148	.045	5.899	0000
	KM innovation agility	.511	.162	.142	3.154	.0020

a. Dependent Variable: Competitive Advantage of Five Star Hotels

The researcher conducted the multivariate regression analysis so as to determine the relationship between the dependent variable and the independent variables. From the Regression results in table above, the multiple linear regression model finally appear as:

$$Y = 1.351 + 0.722 X_1 + 0.663 X_2 + 0.873 X_3 + 0.511 X_4$$

The multiple linear regression models indicate that all the independent variables have positive coefficient. The regression equation above has established that taking all factors into account (technical KM, KM Social infrastructure, KM process and KM innovation agility) constant at zero competitive advantage of five star hotels was 1.351. In addition, taking all other independent variables at zero, a unit increase in the technical KM would lead to a 0.722 increase in the scores of competitive advantage of five star hotels and a unit increase in the scores of KM Social infrastructure would lead to a 0.663 increase in the scores of competitive advantage. Further, the findings shows that a unit increases in the scores of KM process would lead to a 0.873 increase in the scores of co competitive advantage of five star hotels. The study also found that a unit increase in the scores of KM innovation agility would lead to a 0.511 increase in the scores of competitive advantage of five star hotels. All the variables were significant ($p<0.05$).

CONCLUSIONS

The study concludes that availability of social knowledge management infrastructure capability promoted successful implementation of KM in five star hotels based in Nairobi, well defined organizational structure Promotes standard, repeatable processes and procedures strong social KM resources are able to integrate the KM and business planning processes more effectively, develop reliable and innovative applications that support the business needs of the firm faster than competition and predict future business needs of the firm and introduce valuable new product features before competitors.

This study also concludes that Strong technical knowledge management infrastructure capability promotes efficiency in five star hotels which promote internal development knowledge management and thus competitive advantage. Technical infrastructure provided the platform necessary for increasing the effectiveness and efficiency of process capability, the key driver in improving organisational competitiveness.

The study Knowledge management processes capability is key in achieving organisational competitiveness. It promotes knowledge discovery& detection, knowledge, re-use, and knowledge acquisition in five star hotels.

The research finally concludes that the market volatility experienced by five star hotels requires a highly dynamic requires culture of innovation and agility. Building such a culture that is unrelenting in innovation will require total transparency and accountability where access to information, basis for managerial decisions, and genuine interest in accountable and documented performance is fundamental to the core values of the five star hotels as essential in positioning the five star hotels in a sustained prosperity.

RECOMMENDATIONS

This study recommends that the managers of five star hotels should understand and develop a holistic approach of implementing an overall KM capability which is composed of the three perspectives of social, technical infrastructure and processes. These correlated and complementary capabilities should not be considered in isolation but rather should be integrated and combined to leverage, exploit and sustain a CA.

This study also the management of five star hotels based in Nairobi should coordinate and synchronize infrastructure capabilities from both social and technical aspects to facilitate KM process capability. At the same time, they need to keep in mind that cultural attributes are of the most importance to social infrastructure capability and also exert the most influence on other capabilities.

The study Five star hotels should redesign their organisational structure and move towards a flatter and more flexible form that facilitates the sharing and transfer of knowledge across structural boundaries (within and across branches). A standardized reward system is also needed to encourage employees to actively be involved in a friendly knowledge sharing environment by interacting with each other.

The managers of five star hotels based in Nairobi must build up an organizational design which enables the creation of new knowledge, knowledge exchange and transfer across functional boundaries. At the same time, knowledge needs to be frequently examined for errors and mistakes.

The managers should clearly support the role of knowledge in corporate success, make sure that their employees understand this issue and more importantly, encourage them to participate in on-the-job training and learning, as well as in capturing and transferring knowledge. Regarding human skills, business managers must emphasize employees‟ understanding of their own and others tasks, develop their expertise, and enable them to communicate well with all other organizational members. Combining all of these individual capabilities with more attention to cultural issues will assist firms to develop a strong social KM infrastructure capability.

The managers also need to take advantage of technological capability to support KM processes. In particular, organizations should use technology to map the location of specific types of knowledge, thereby facilitating the application and sharing of knowledge. Technology also needs to be applied to facilitate people in multiple locations to learn as a group from a single or multiple resources and at a single or multiple points in time. By doing so, social and technical infrastructure elements can complement each other and come together to enhance knowledge-oriented processes.

To attain a CA, management should start with the development of infrastructure capabilities from both social and technical perspectives, which in turn will provide the platform necessary for increasing the effectiveness and efficiency of process capability, the key driver in improving organizational competitiveness.

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