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Knowledge Conversion Capability and Organizational Effectiveness among Private Universities in Kenya: A SECI Model Perspective

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Abstract:

This paper analyzes the effect of Knowledge Conversion capability on Organizational Effectiveness in private Universities in Kenya from a SECI Model Perspective. The SECI Model describes the process of interaction between explicit and tacit knowledge. It is now accepted that we live in a knowledge economy and it has been predicted that those organizations that can convert information to organizational knowledge will be the most successful. It was of interest to understand how higher education institutions handle this crucial resource given that they are in knowledge business and thus subjected to market pressures like any other business organization. Data was collected from the registrars/deputy registrars and academic staff using semi-structured face-to-face interviews which provided the data about how private universities perform these knowledge conversion activities. The study findings contribute to practice, theory and methodology. The findings indicated that knowledge conversion had an effect organizational effectiveness. The study examined private universities only. Future research should be conducted in other higher education institutions such as public universities, colleges and polytechnics. The study recommends that opinions of other stakeholders such as students, other members of staff, employers and communities be studied in future.

Keywords: Resource based view, knowledge conversion knowledge management, SECI model, organizational effectiveness

1. Introduction

Knowledge is a very crucial resource (Celina, 2015) not only to individuals but also to organizations that want to succeed in a rapidly changing environment (Cohen, 2013; Ziemba, 2013) competitiveness and performance. It is now accepted that we live in a knowledge economy as believed by (Donate & Canales, 2012). Knowledge economy differs with other economics in that it is not of scarcity but rather of abundance. As organizations interact with their surroundings, they generate a lot of information that can be converted into useful organizational knowledge. An article by *Havard Press Review* predicted that those organizations that can convert information into organizational knowledge will be the most successful.

Today's business operating environment is rapidly changing (Schilke, 2014) and also highly competitive which should be a concern to every business organization private universities included since they are in knowledge business and are subjected to similar market pressures like any other business organization (Seyed, 2015). Many organizations are embracing knowledge management as an important capability that can be used in aiding the running of business more successfully (Bosua, 2013). Thus understanding knowledge management processes that include knowledge creation, conversion, use and protection is of paramount importance not only to public, private or nongovernmental organizations but to all organizations that wish to remain competitive and effective in their chosen markets (Wooten, 2013). Their survival, growth and prosperity will highly depend on their ability to generate, organize, use and safeguard their knowledge resources. This article analyses the role of knowledge conversion in improving the organizational effectiveness of private universities in Kenya from a SECI model perspective.

2. Problem Statement

Knowledge has been recognized as an essential resource in any organization. Higher education institutions have a wealth of knowledge accessed from their internal and external stakeholders and letting such knowledge go unmanaged will give their competitors an upper hand in the market. However, organizations have found that leveraging knowledge is extremely difficult (Parul, Monika & Mishra (2012). Although Knowledge Management should stand alongside the management of an organization's resources such as human, financial and physical resources, this has not been the case (Stewart, 1997). Knowledge conversion is made possible through the processes and activities of synthesis, refinement, integration, combination, coordination, and distribution and restructuring of knowledge (Naiker & Naidoo, 2014). However, trying to organize such knowledge can be difficult to an organization and therefore developing an effective way of managing knowledge is of paramount importance. A study by Ismael (2009) on Knowledge

Management Applicability in Higher Education Institutions stated that experiences in adopting knowledge management tools and methods by a limited number of universities in different countries were positive. The universities reported that KM had helped the universities to solve problems and to enhance growth. It was of interest to learn how private universities in Kenya convert knowledge into practical or useful forms and the relationship to organizational effectiveness. The findings of this study will be used as a reference material by knowledge management scholars, educators' future researchers and students undertaking the studies in this field all over the world and especially here in Kenya where no other such a study has been carried out. The few studies that the researcher came across in literature review were in other sectors and many were done outside Kenya.

3. Literature Review

3.1. Overview of Knowledge

In order to clearly understand the concept of knowledge management, it is important to first define what knowledge is (Uriate, 2008). The Webster Dictionary (2013) defines knowledge as "the fact or condition of knowing something with familiarity gained through experience or association" and experience, understanding, or skill that one gets from education" or as a clear and certain perception of something, the act, fact, or state of understanding.

According to Mosoti (2010), the search for meaning of knowledge dates back to 360 BC, during the times of ancient scholars such as Aristotle and Plato. Plato defined knowledge as justified true belief while Aristotle emphasized on the systematic acquisition that is based on a correct method. Other scholars have tried to offer different views on the meaning of knowledge. Bryan (2003) defines knowledge as information that is organized, synthesized, or summarized to enhance comprehension, awareness or understanding. Davenport, (1998) defined knowledge as a fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. However, there is no agreed universal definition to date (Filemon, 2008).

Many a times, people use data, information and knowledge interchangeably and therefore, besides understanding what knowledge is, it is also important to be able to differentiate between data, information and knowledge. Data is information that is structured, but has not been interpreted, and thus has no meaning. It represents raw numbers or assertions, unorganized, unprocessed e.g. a number, a word, or a letter without any content. Information on the other hand, is data with a meaning, a message with a sender and a receiver, can be saved on computer, paper, tape or other media. It is processed and refers to a context. It is content that represents analyzed data. Knowledge is information that has a purpose or intent attached, emergent, and socially constructed and exists only in people's minds. It is a justified true belief. It makes sense to the world. It is subjective and valuable information (Mosoti & Masheka, 2010; Kimiz, 2011). Once knowledge is available, then it can be put to work and applied to decision making. Knowledge originates in individuals, but it is embedded in teams and in organizations.

3.2. Types of Knowledge

After understanding what knowledge is, the next step should be to understand the different forms of knowledge that exist and thereby being able to distinguish them. Blackler (1995) defines knowledge as taking five distinct forms: embodied, embedded, em-brained, en-cultured, and encoded. He defines embodied knowledge as knowledge that is gained through training of the body to perform a task, and (Hislop, 2013; Yakhlef, 2010) point out that it is impossible to totally disembodify this knowledge from people. Embedded knowledge is a knowledge that is found in routines and systems. Organizational common tasks, routines or the common ways people go about their jobs, can hold embedded knowledge, as the routines facilitate learning amongst the employees that go beyond their job tasks. Hislop (2013) corroborates this fact by stating that knowledge is embedded, and inseparable from, practice. That is, knowledge that is embedded in work practices is simultaneously embodied by the workers who carry out these practices (Yakhlef, 2010). Em-brained is defined as the knowledge that a person can possess, but has difficulty expressing in words or sharing with other. It is further described as a knowledge that one cannot easily write down, talk about with others, or represent with pictures or other tools. It is gained through experience over time and may reflect one's perceptions, opinions, values and morals. En-cultured knowledge is described as a set of knowledge that is shared among groups of people who share a similar environment or culture, such as what is accepted, what actions and opinions are considered normal, and what behaviors are expected of people. Encoded knowledge is a form of knowledge that can be easily written down, expressed in words or diagrams, and is transferrable through multiple channels and means. Procedure manuals, guidelines, process diagram, flowcharts, recipes and instructions are all examples of encoded knowledge, because they are encoded in a physical form that is understandable by a lot of people.

However, even though knowledge has been categorized in many different ways, in essence knowledge is most commonly categorized as: tacit (embodied) and explicit (codified) (Nonaka, 1998; Polanyi, 1967). The term tacit comes from the Latin word *tacitus* and means to be silent, passed in silence, not spoken of, kept secret, unmentioned, not openly expressed or stated, but implied, understood, inferred etc (Korhone, 2014). Tacit knowledge is that form of knowledge that is subconsciously understood and applied, difficult to articulate, developed through direct experience and action and usually shared through highly interactive conversation, storytelling and shared experiences (Sunasse, 2011). This therefore means that tacit knowledge is that knowledge that resides in people's brains. In an organization set-up, skills and competencies, experiences, relationships within and outside the organization, individual beliefs and values and ideas are examples of tacit knowledge.

On the other hand, explicit knowledge is the knowledge that is codified, articulated, documented and saved for future use and proves to be easy to share (Suppian & Sandhu 2011; Adaileh & Alawi 2011). It is that knowledge that can be documented, categorized,

transmitted to others as information and illustrated to others for example through demonstrations and explanations and other forms of sharing (Thi, 2010). According to Sunasse (2011), explicit knowledge is knowledge that is easy to articulate, capture, distribute in different formats since it is formal and systematic. Explicit knowledge is codified, recorded and available, and is held in books, journal articles, databases, in corporate intranets and intellectual property portfolios. Explicit knowledge is therefore that knowledge contained in documents or other forms of storage other than the human brain. Explicit knowledge may therefore be stored or embedded in facilities, strategies, methodologies, products, processes, services and systems. Both types of knowledge can be produced as a result of interactions or innovations. Organizations use both tacit and explicit knowledge to respond to novel situations and emerging challenges.

3.3. SECI Model

SECI Model of knowledge conversion was proposed by Nonaka and Takeuchi (1995) to describe the process of interactions between explicit and tacit knowledge. They studied Japanese manufacturing companies to explore how knowledge is created and can be converted. Their study came up with four modes of knowledge conversion based on the transformation of tacit and explicit knowledge. Nonaka labeled the four modes as Socialization process where tacit knowledge is converted into tacit knowledge, Externalization process where tacit knowledge is converted into explicit knowledge, Combination process where explicit knowledge is converted into explicit knowledge and Internalization process where explicit knowledge is converted into tacit knowledge.

According to Nonaka, (2009), Dyer (2011), organizational knowledge conversion is based on two dimensions. The first dimension shows that only individuals create knowledge. The second dimension relates to the interaction between explicit and tacit knowledge. These two dimensions form the basis for defining the four processes of conversion of knowledge; socialization, externalization, combination and internalization. Socialization process converts existing tacit knowledge into new tacit knowledge. It is experiential, active and a “living thing,” involving capturing knowledge by walking around and through direct interaction with customers and suppliers outside the organization and people inside the organization. This depends on having shared experience, and results in acquired skills and common mental models. Socialization is primarily a process between individuals (Nonaka & Krogh, 2009; Nonaka & Takeuchi, 1995)

Externalization process articulates tacit knowledge into explicit knowledge, which occurs when an organization formally expresses its internal rules of operating or when it explicitly sets written organizational goals (Nonaka et al 2000). One case is the articulation of one’s own tacit knowledge - ideas or images in words, metaphors, analogies. A second case is eliciting and translating the tacit knowledge of others - customer, experts for example - into a readily understandable form, e.g., explicit knowledge. Dialogue is an important means for both. During such face- to-face communication people share beliefs and learn how to better articulate their thinking, though instantaneous feedback and the simultaneous exchange of ideas. Externalization is a process among individuals within a group (Nonaka & Krogh, 2009).

Once knowledge is explicit, it can be transferred as explicit knowledge through a process Nonaka calls Combination. This is the area where information technology is most helpful, because explicit knowledge can be conveyed in documents, email, data bases, as well as through meetings and briefings. The key steps collecting relevant internal and external knowledge, dissemination, and editing/processing to make it more usable. Combination allows knowledge transfer among groups across organizations (Nonaka & Krogh, 2009).

Internalization is the process of understanding and absorbing explicit knowledge in to tacit knowledge held by the individual. Knowledge in the tacit form is actionable by the owner. Internalization is largely experiential, in order to actualize concepts and methods, either through the actual doing or through simulations. The internalization process transfers organization and group explicit knowledge to the individual (Nonaka & Krogh, 2009). Figure 1 here below illustrates how the four processes takes place.

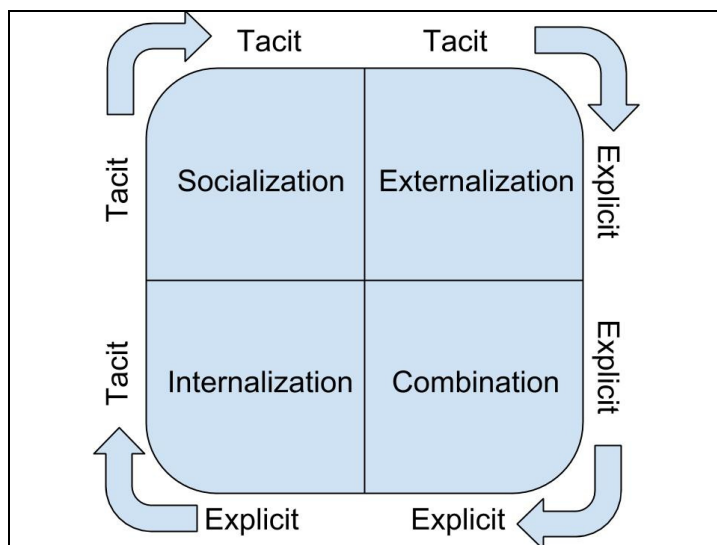


Figure 1: The SECI Model

3.4. Knowledge Conversion and Organizational Effectiveness

Knowledge is sought and shared at a global arena, be it at a corporate or academic level (Hautala,2011) and sound decisions will heavily rely on having the right knowledge in the right place and at the right time to be able to act effectively(Mackenzie,2011). Smith and Dion, (2010) have stated that it is not easy to collect and share knowledge and convert it into useful and applicable form. The conversion of information into institutional knowledge requires established management tools (Ghaya, Mansour & Refaat, 2014) .This is enabled by some processes such as the firm's ability to organize, integrate, share and coordinate knowledge (Gold,2001).

4. Methodology

The study embraced the interpretive principle. The purpose of research in interpretivism is understanding and interpreting everyday happenings (events), experiences and social structures as well as the values people attach to these phenomena (Collins & Hussey,2009; Rubin & Babbie,2010). According to Bryman (2012) interpretivists share a view that the subject matter of the social sciences-the people and their institutions- is fundamentally different from that of the natural sciences. Interpretivists contend that only through the subjective interpretation of intervention in reality can that reality be fully understood.

The qualitative data was collected through face-face-interviews conducted on registrars / deputy registrars in private universities in Kenya. The sampled respondents were deemed knowledgeable on subject matter and therefore, they were in a better position to provide credible information as sought by the study.

The data collected from key informants was analyzed qualitatively and since despite many requests that the respondents allow the interview to be audio-taped, all the respondents refused to allow such recording, the notes taken during the interviews were used. A write up was immediately done after every interview in order to avoid missing out on some of the data. These research notes were read through, highlighting common words in the data and looking at what most respondents appear to have said, namely the phrases which appeared to generate themes. Miles and Huberman (1994) recommend that codes be generated to help describe the data. These codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during the study. The codes used for analysis in the study originated from main variables of the study as presented in the literature review.

The interview notes containing the responses related to each of the dimensions were coded based on the coding listing presented in Table 1.

Code	Meaning
KAC	To refer to words ,ideas or phrases used by the respondent to refer acquisition of new knowledge or creation new knowledge
KCO	To refer to words ideas or phrases used by the respondent to refer to conversion of the acquired knowledge into useful form.
KAP	To refer to words, ideas or phrases used by the respondent to explain how knowledge is actually used in their organization.
KPR	To refer to words, ideas or phrases used by the respondent to refer to how knowledge is secured in the organization against inappropriate or, illegal use or theft.

Table 1: Codes used in the analysis

Source: Author (2017)

5. Results and Discussion

Qualitative data analysis was done. Qualitative analysis involves the non-numerical explanation of one's examination and interpretation of observations with the purpose of identifying meaning and patterns of relationship (Creswell, 2008). This type of analysis encompasses interpreting action or meaning through a researchers own words rather than through numerical assignments.

The knowledge conversion activities were divided into four SECI model processes namely Socialization, Externalization, Combination and Internalization for clear and organized discussion. The four activities are discussed here below.

5.1. Socialization

Socialization involves converting tacit knowledge into tacit knowledge. The process is characterized by joint activities mostly face-face interactions such as discussions and meetings. With regard to Socialization, transfer of knowledge from person to person in the private universities was happening through discussions held in meetings, seminars and training programmes. It is also done in social setups when people meet and share and discuss their experiences. To emphasize on this point one of the respondents said; *''we hold open forums, research conferences and regular meetings whereby we consult, dialogue and share information.''*

5.2. Externalization

Externalization involves conversion of tacit knowledge into explicit knowledge. It requires translation of what one knows into a form that can be understood by others. It may involve outlining the knowledge in document or manuals. The findings indicated that knowledge is made explicit through documenting experiences and skills of individuals, reports, minutes, experts training, documenting standardized processes, hand books and guidelines. To drive this point home, a respondent said *''to ensure that information is available for reference, we generate reports, provide insights and document resolutions of meetings held and circulate them to the relevant offices''*

5.3. Combination

This process involves conversion of explicit knowledge into another form of explicit knowledge through codification and classifying the knowledge for better retrieval and easier sharing in the future. The combination process is meant to make explicit knowledge clearer and put into more useful form for the organization and members of staff. This was done through regular updating of databases and communication of changes in procedures and hand books. To emphasize on this point, one of the respondents said; *“Our organization is normally very careful not to lose important information. We always store our data in the system”* It also happened through internal peer review where people are allowed to discuss work methodologies. A respondent stated: *“whenever there are work methodologies that need to be addressed, a head of department is assigned the responsibility to coordinate the discussion and follow up on the implementation of the resolutions”* Also when necessary job rotation is done and new members of staff were assigned to mentors to help them find their way in the organizations.

5.4. Internalization

This process is where explicit knowledge is converted into tacit knowledge. It involves learning the new knowledge for example going for training. The staff in private universities internalizes explicit knowledge through attending meetings and trainings where issues are discussed and explained to them. When required experts are regularly invited to come and give step-by-step description of work methods to enable members of staff work efficiently. They also access data bases to retrieve knowledge for use in their day to day operations. To emphasize on this point, a respondent said; *“we hold regular meetings to give briefings on new developments or improvements needed especially after receiving reports from our marketing teams or from the regulator and government”*.

From the interviews, the respondents also identified customer relationship management software, processing of customer interaction data, documentation and reports and action plans as some of the methods used in knowledge conversion. These methods helped knowledge to be organized and put in a more portable form that is easy to use. The respondents also suggested that organizations needed to have their websites updated regularly as possible so as to keep the customers informed of what is happening in the organizations.

The data collected was analyzed in relation to the four factors of SECI model and table 2 presents a summary of the knowledge conversion activities.

Conversion Process	Activities
Socialization	Holding <ul style="list-style-type: none"> • meetings • Seminars • Training • Open forums • Research Conferences
Externalization	Documenting <ul style="list-style-type: none"> • Experiences and skills of individuals • Reports • Minutes • Standard Processes ✓ Hand books and guidelines ✓ Experts Training
Combination	<ul style="list-style-type: none"> • Regular updating of databases • Communicating changes in procedures and hand books • Internal peer review • Job rotation • Assigning of mentors to new staff
Internalization	<ul style="list-style-type: none"> • Attending meetings • Step-by-step description of work methodologies by experts • Accessing databases

Table 2: Summary of Knowledge Conversion Activities/Practices
Source: Author (2017)

The respondents acknowledged that having the right information, in the right place and at the right time had helped them to add value to their services and to the society and the nation at large. Universities had played a central role in research, academic and community development.

6. Conclusion

The analyzed data suggested that several of the SECI processes were in use and were influencing organizational effectiveness in Private Universities in Kenya. The study thus conformed to the SECI Model. The findings of this study also contribute to practice. It

will help those managers that are planning to implement knowledge management in their organizations. Through this study they can now understand how the knowledge management activities relate to their organizational effectiveness. Most of the literature reviewed showed that previous studies had used quantitative approach. This study embraced a qualitative approach and has provided reliable results hence confirming that qualitative approach is as a credible methodology to use in research.

This study recommends that there is need of building upon existing knowledge conversion mechanisms so as to enhance efficiency and effectiveness of their use among private universities. The study therefore advocates for speedy and heavy investments in technology to preserve and protect the integrity of knowledge developed by private universities. With a dynamic knowledge management processes in place the organizations will also get information in real time which will help the top management to deal with the complexities that surround the organization and changes in the environment. However, organizations should realize that the success of knowledge management initiatives depends with full support of both top management and the other members of staff. Organizations should encourage and motivate their skilled and qualified staff to be willing to share and apply what knowledge they have. Human resource managers should play a critical role in developing policies that will motivate, encourage and facilitate the sharing and transfer of knowledge among individuals, teams and the entire organization. The tools are merely playing the enabling and facilitating role. The human element should not be ignored. To improve the organizational effectiveness of private universities, the study recommends that there is an urgent necessity to assimilate mechanisms for converting knowledge into action plans and promotion of developed knowledge externally

7. Areas for Further Research

The findings were generalized about private universities and might not be extrapolated to include public universities, colleges, and polytechnics. Therefore future research should consider assessing the impacts of knowledge conversion practices on other institutions including public universities, colleges, and polytechnics. The study collected data from the registrars/deputy registrars and academic staff leaving out other stakeholders. The study recommends that opinions of other stakeholders such as students, other members of staff, employers and communities be studied in future. The study excluded other factors such KM infrastructure capability which may also impact on both knowledge management and organizational effectiveness.

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