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Linking Human Resource Management to Knowledge Transfer for Organizational Development

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Abstract

Knowledge is a key element to all the Human Resources and a major reason as to why some companies do better than the others. The more knowledgeable employees are in the organization, the more competitive that organization is. If the management is able to help employees to share this knowledge they have with the rest of the team, the organization becomes more productive. Human Resource Management is the management of an organization's workforce. Knowledge transfer is the process through which one unit such as department, group, team, division etc. is affected by the experience of another (Argote and Ingram, 2000). Organizational knowledge can be observed through changes in the knowledge or performance of the recipient of the unit. It should always be noted that transfer of this organizational knowledge is not an easy task. Knowledge transfer is of two types: tacit and explicit. Tacit knowledge is more subjectively related to individuals making it difficult to formalize and transmit. Tacit knowledge has inherent value because it is inimitable, rare, unique and path dependent (Ghemawat, 1991). From individual perspective, tacit knowledge is acquired by experience through learning by doing and learning by using (Collins, 1991). On the other hand, explicit knowledge can be codified and is conveyed through formal and methodical language. Knowledge transfer is important to the organization in that it can produce more innovations and organization enjoys better performance if they occupy central network position that provides access to new knowledge developed by other units. Knowledge transfer can be done using two mechanisms which includes face-to-face communication and written media. The role of human resource management is to ensure that the organization has the knowledge that the company need for its success. The management faces a lot of challenges in transfer of knowledge within the organization among them being language barrier, trust problems, communication challenges and faulty information.

Key words: knowledge, knowledge transfer, human resource management, organizational performance

1.0 Introduction

Tuan (2011) indicated that the competency to transfer knowledge and learn from experience has been found to influence the crucial organizational outcomes such as productivity, timeliness and sustainability. Personal contacts or movement and face-to-face communication are rich communication media that are particularly well suited for sensitive information to be transferred and acquiring. Knowledge is a dominant feature in our post-industrial society and knowledgeable workers/human resources should be involved in the organization.

Dedication

This work is dedicated to Kimani (Pie), Njoki, Malvin, Victor, Muthura, Travis and Francis.

The management is responsible for the transfer of the knowledge in the organization and should always try to encourage and monitor the progress of the employees and how they share what each employee has with the rest of the team.

Knowledge is the basis for all that is going on in everything this days and therefore HR should understand what type of knowledge do exist in organizations so as to allow them to foster internal social structure that facilitate and support learning in all organizational domains. Collins (1993) came up with five types of knowledge:

- i. Embrained knowledge
- ii. Embodied knowledge
- iii. Encultured knowledge
- iv. Embedded knowledge
- v. Encoded knowledge

Embrained knowledge – is the knowledge that is dependent on conceptual skills and cognitive abilities. It is practical, high-level knowledge where objectives are met through perpetual recognition. Tacit knowledge falls here even though it is subconscious.

Tacit knowledge – is more subjectively related to individuals making it difficult to formalize and transmit. Tacit knowledge has inherent value because it is inimitable, rare, unique and path dependent (Ghemawat, 1991). From individual perspective, tacit knowledge is acquired by experience through learning by doing and learning by using (Collins, 1991). Tacit knowledge includes contextual dimensions of facts, events and ways of acting or doing. It is rooted in history and past action and involves perceptual, cognitive and technical elements (Nonaka, 1994). In simple words, tacit knowledge is well recognized as something very difficult to articulate and record but it is invaluable in adding depth and context to the information to give a richer understanding.

Embodied knowledge –it is an action oriented type of knowledge and consists of contextual practices. It is more of social acquisition on how individual interacts and interpret their environment. This creates non-explicit type of knowledge.

Explicit knowledge can be codified. It is conveyed through formal, methodical language.

Encultured knowledge –it is the process of achieving shared understanding through socialization and acculturation. Language and negotiation are key element in an enterprise.

Embedded knowledge – it is tacit and it resides within systematic routines. It relates to the relationships between roles, technologies, formal procedures and emergent routines within a complex system. For a HR manager to be able to initiate any specific line of business knowledge, transition must be there.

Encoded knowledge –it is the information that is conveyed in signs and symbols such as books, databases, manual etc. and it is decontextualized into codes of practice. It is a specific type of knowledge that deals with the transition, storage and interrogation of knowledge.

Knowledge has three components: strategies, value and assumption. Strategies are organizational routines that characterize a developed bureaucracy. Values represent the organizational internal sense of the legitimacy of its goals, objectives and methods of accomplishing them that are held in common by organization's members. Assumptions represent the naturally accepted constraints on the scope of routines performed and contemplated for the future by the organization.

1.1.0 What is Knowledge Transfer?

Knowledge transfer is the process through which one unit such as department, group, team, division etc. is affected by the experience of another and is manifested through changes in the knowledge or performance of the recipient units and can be demonstrated by measuring changes in performance (Argote and Ingram, 2000). Organizational knowledge can be observed through changes in the knowledge or performance of the recipient of the unit. It should always be noted that transfer of this organizational knowledge is not an easy task.

Knowledge transfer can also be said to be a means by which expertise, knowledge, skills and capabilities are transferred from the knowledge-base such as university and college to those who need the knowledge namely company, social enterprise and NGOs. In short we can say it is the interphase between universities and businesses. It involves the commercialization of skills and expertise possessed by higher education. The purpose of knowledge transfer is to catalyze and facilitate innovation. Knowledge transfer seeks to organize, create, capture or distribute knowledge and ensure its availability for future users. Knowledge transfer is not accomplished through just communication, memo or meetings but many more.

It is a complex process because it resides in organizational members, tools, tasks and their sub-network. Most of the knowledge with the HRs in any organization is tacit; hard to articulate.

1.1.1 What is knowledge creation and its importance in an organization

Before the knowledge is transferred within the organization, it must be gained. Knowledge creation according to (Ikujiro, 1991) is a continuous transfer, combination, and conversion of different types of knowledge where users practice, interact and learn. Cook and Brown (1999) distinguish between knowledge and knowing, and suggest that knowledge creation is a product of the interplay between them. The shift in condition between the possession of knowledge and the act of knowing - something that comes about through practice, action, and interaction- is the driving force in the creation of new knowledge. Creating knowledge in an organization refers to transforming individuals' HR skills and knowledge into the knowledge embedded in the organization by means of proper transformation mechanisms. According to Nonaka and Takeuchi (1995) knowledge is a spiral that encompasses the stages of socialization, combination, externalization and internalization.

Knowledge creation is beneficial to a company or an organization in that it enables and encourages knowledge sharing, create a suitable work environment, provide systems that support the work process and provide knowledge workers with timely, relevant information and data. A company attains a competitive advantage over other through knowledge creation. It focuses on competitiveness analysis in the industry-specific environment (Porter, 1980) and the perspective of resource based views that emphasizes the use of specific resources (Wernerfelt, 1984); Barney, 1991). According to the knowledge-based views, the most critical input and value source are knowledge in a firm's process of production activities (Grant, 1996) because all inputs are established on the foundation of knowledge. However, an organizations' knowledge improvement reduces on performance variability and increases on reliability (March, 1991). Knowledge assets are the foundations in forming organizational capabilities; therefore the most vital operational principle for a firm is to create and apply knowledge asset (Nonaka, 1994; Grant, 1996 and Teece, 1998). According to Nonaka (1994), knowledge creation is comprised of two aspects: Epistemology and Ontology. Ontology refers to the concept in which only individuals could create knowledge and thus an organization cannot create knowledge by itself without individuals. An organization needs support and creative individuals to provide a proper environment and allow individuals to create knowledge. This henceforth indicates that organizations needs to support creative individuals or provide a proper environment and allow individuals to create knowledge. Organizational knowledge creation needs strengthening and concretizing the knowledge created by individuals and forming this into its knowledge network. This process occurs within an expanded interactive group of people spanning across the internal structures of an organization, or across organizations and borders. Meanwhile, epistemology distinguishes tacit from explicit knowledge. Tacit knowledge is individualistic and especially related to the scenario which is difficult to formalize or communicate. Explicit knowledge refers to the knowledge transferable in formalized and standard languages.

Helleloid and Simonin (1994) explain that organizations acquire knowledge in five paths:

- i. Independent internal development
- ii. Externally assisted internal development
- iii. Purchase of new knowledge from the public market
- iv. Corporate cooperation
- v. Merger and acquisition

According to Leonard-Barton (1995) the origin of knowledge into consultants, customers, state laboratories, universities, competitors or non-competitors and suppliers has inter/intra organizational scope. Knowledge creation is the process of creating new knowledge. The paths for the creation of the new knowledge include technology change and innovation within an organization, response to the impact of an outside competitor and understanding customer's needs. Knowledge is an important resource for a firm to create, it add value and possess features of being unique, difficult to transfer and in duplicate (Kogut and Zander, 1992).

1.1.2 What is Knowledge Management and its importance in the Organization

Knowledge management is a process that aims at supporting innovation and encourages the free flow of ideas through the company. It helps in increasing incomes because the products or services are delivered to the market faster therefore reducing costs. This process increases the time that employees spend in the company, because their knowledge and efforts are valued by the system of rewards (Tisen et al., 2006).

Knowledge management also means organizing an organization's information and knowledge holistically (Koenig, 2012. According to Davenport (1994), knowledge management is the process of capturing, distributing, and effectively using knowledge. To Duhon (1998), knowledge management is a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. These assets may include databases, documents, policies, procedures, and the expertise and experience in individual workers. Knowledge Management is a discipline that improves the ability of organizations to solve problems better, adapt, evolve to meet changing business requirements, and survive disruptive changes such as staff turnover (Bounds, 2009).

Knowledge management comprises a range of strategies and practices used in an organization to identify, create, represent, distribute and enable adoption of insights and experiences. This insights and experiences comprises of knowledge either embodied in individuals or embedded in an organization as processes or practices (Ikujiro, 1991).

Knowledge Management is important in that it recognizes that organizations are a complex system made up of both the people that work for the organization and the processes, procedures and information systems that drive the actions of the organization (Bounds, 2009). The revolution in communications over the past 50 years such as email, internet, telephone and fax allows people to talk directly to each other without the use of intermediaries such as managers or team leaders. This allows organizations to be more efficient by bringing together needed expertise and knowledge on demand. However, with this new approach, knowledge gained and lessons learned are not always shared across the organization (Bounds, 2009). In other words, some people may know the solution to a particular problem, but the organization as a whole may not be aware. This can lead to loss of critical knowledge when staffs leave, and for inefficient practices to remain despite better solutions being available.

The key objective of knowledge management is to enhance knowledge processing which can be attained by correctly identifying the problems that need solving as they occur, have robust information location and retrieval channels to enhance individual decision making, embrace effective knowledge creation processes, ensure that created knowledge is shared with and integrated across the whole of the organization(Ikujiro, 1991).

Implementing knowledge management in organizations is beneficial in that:-

- i. It fully and accurately informs employees, customers and stakeholders on anything they may desire to know
- ii. It improves team effectiveness and delivery of outcomes in the organization
- iii. It continuously improves on the organizational culture and makes the organization adaptable in the face of change.
- iv. Enterprises generate value and become imperative for modern business in the new economy; organization can survive in the conditions of constant changes in business environment.
- v. To be competitive, employees must have the ability to innovate, develop and implement newly acquired knowledge.
- vi. It leads to long-term survival of an enterprise through creativity and innovation
- vii. Knowledge management improves capabilities of enterprise to acquire, adopt, transform and apply external knowledge, and in that way increases absorptive capacity of an enterprise which is very important for innovation process.

- viii. Knowledge management is essential for achieving internal and external cooperation which, in turn, has a significant role in transferring tacit knowledge among individuals and organizations. The better the relationship performances are the more intensive transfer of tacit and explicit knowledge among strategic partners is.
- ix. Knowledge management leads to improving operational performances in an organization by providing reduction of mistakes and costs in its daily business activities, greater labour productivity, better and faster solving problems, better decision making, more intensive business cooperation, deeper understanding of needs and requirements of customers, and improving products, services and business processes.

In order to acquire and sustain competitive advantage, organization should constantly develop knowledge resources, encourage creativity of employees and increase innovation capacity.

Effective knowledge management enables increasing effectiveness of business processes, and overall effectiveness of enterprise as network of business processes in achieving operational and strategic goal. Effective knowledge management helps an organization adjust quickly its business processes in accordance with current conditions which becomes noticeable in times of frequent and dynamic changes. Efficient knowledge management enables employees to use knowledge, and other resources more efficiently. In this way efficiency of business processes is improved.

In a nutshell, knowledge management is paramount especially in the twenty first century where knowledge is said to be power, every individual and organization should embrace it.

1.2 The Role Human Resource Management in Knowledge Transfer

Human Resource Management is the management of an organization's workforce. It is responsible for the attraction, selection, training, assessment and rewarding of employees, while at the same time overseeing organizational leadership and culture, ensuring compliance with employment and labor laws. Human Resource Management is said to be universal in terms of strategies, policies and processes (Ukertor, 2013). The term Human Resource Management has replaced personnel management. The role of the management in knowledge transfer is to ensure that the organization has the intellectual capital it needs.

The managers are at all-times faced with the need to find the proper balance between the employees needs and the financial opportunities of the company. In any business environment, the competitive position of a company compared to the others is influenced by its capability to create new knowledge which in return results in the creation of a competitive advantage.

According to Armstrong (2006) in Aziri et al (2013), human resource management has a role to play in ensuring the right knowledge lead to performance in the organization as indicated hereunder.

- i. Help in developing an open culture in which the values and norms emphasize the importance of knowledge sharing
- ii. Promote a climate of commitment and trust
- iii. Advise on the design and development of organizations which facilitate knowledge transfer through networks and communities of practice and teamwork
- iv. Advise on resourcing policies and provide resourcing services which ensure that valued employees who can contribute to knowledge creation and transfer are attracted and retained
- v. Advise on methods of motivating people to share knowledge and rewarding those who can do so.
- vi. Help in the development of performance management process which focuses on the development and sharing of knowledge.
- vii. Develop processes of organizational and individual learning which will generate and assist in disseminating knowledge. The management is supposed to set up and organize workshops, conferences, seminars and symposia which enable knowledge to be transferred from one person to the other.
- viii. Codify explicit and tacit knowledge

According to Armstrong (2000), the management role in knowledge transfer is to facilitate the diffusion of learning through workshops, projects and tasks. They should coordinate the preparation of organizational business strategies and plans.

The management can also encourage knowledge transfer within the organization through the use of training, incentives, organizational structures and technology. The management can develop policies that motivate staff to gain and share knowledge (Minbaeva, 2005).

1.3 How can organization transform individual knowledge into organizational capabilities?

According to Grant (1996), organization's ability to integrate knowledge is the most important factor in organizations. Ask any CEO and managers today what is their plan for the organization and they are likely to tell you that the ability to develop new ideas and innovations is one of their top priorities of their organizations (Porter, Stern and Council on competitiveness, 1999). Due to ability constraints, individual cannot integrate other's knowledge.

If transacted in the market, explicit knowledge is difficult to price and tacit knowledge is hardly transferrable. The emergence of the knowledge economy, intense global competition and considerable technology advance has seen innovation become increasingly central to competitiveness. Innovation is the mechanism by which organizations produce new products, processes and systems required for adapting to changing markets, technologies and modes of competition (D'Aveni, 1994; Dougherty & Hardy, 1996; Utterback, 1994). As companies become increasingly focused on innovation, the performance hurdles for success have increased considerably. Escalating levels of commitment to innovation are required simply to stay in the same place, much less improve competitive position. However, managing the complex and risky process of innovation has been problematic and fraught with difficulty (Kanter, 1989; Quinn, 1985).

According to Argris and Schon (1996), organizational knowledge has the codes (rules, formal and informal procedures and policies, mental maps etc.) and routines (strategies for performing complex task) that guide organizational action. The organization's capabilities are the foundation for the creation and integration of the knowledge of individuals inside the organization. According to Foss (1996), an organization's capability is a special knowledge capital that enables the firm to execute some activities more effectively than others. An organization's capabilities should be accumulated by its knowledge creation and by mutual learning among its members. According to Teece et al (1997) such mechanism of knowledge creation, integration and learning is the optimum feature of dynamic capabilities. Dynamic capabilities as organizational routines, learning and knowledge management processes guide their development, evolution and use. For instance, knowledge codification into procedures and technologies makes experience and routines easier to apply (Zander & Kogut, 1995).

An organization creates new knowledge by means of knowledge spiral method, a process of transforming the tacit knowledge into explicit knowledge, converting it into innovation knowledge that an organization can deploy then using this innovation knowledge to obtain competitive advantage in the market (Nonaka, 1994)

1.4 The importance of knowledge transfer to the organization

Knowledge transfer is not just about the transfer of information but about passing on experience, best practice and learning. It aims in reducing the gap between knowledge and practice. Knowledge transfer in organizations has increased in importance. For instance according to Valentine (2011) developing the right knowledge system enables organizations to improve work practices, take better decisions and avoid the criticism that comes from failing to learn from previous experiences.

Organizations can also enjoy better performance if they occupy central network position that provides access to new knowledge developed by other units. This unit however depends on the units' absorptive capacity and ability to successfully replicate new knowledge (Aoker and Keller, 1990).

Knowledge transfer and management promote and encourage knowledge-driven culture by which innovations are stimulated. It emphasizes the importance of innovative organizational culture, where innovation, creativity and learning from mistakes is appreciated. It helps in creating tools, platforms and processes for creating, sharing and transferring of tacit knowledge in organization.

Tacit knowledge is very important for the development of innovation capability. Knowledge transfer help in identifying 'stock' of tacit knowledge in an organization. It helps in encoding tacit knowledge into explicit knowledge. By providing a structured approach to knowledge, knowledge management allows an organization to identify in which areas it lacks knowledge and to systematically fill the knowledge base in these areas. The organization can do that through the innovation if there are gaps in so-called strategic areas of knowledge or can do that through operational activities in knowledge management. Knowledge management helps steady growth of knowledge base, and in that way, improves innovation capability through continuous collection and storage of explicit and tacit knowledge.

The benefits of knowledge transfer to the employees are:-

- i. The employees will become less dependent upon consultants for similar future projects, or for the continuing the consultant's work
- ii. The skills and capabilities of the staff will be enhanced
- iii. Employees will benefit from consultants' lessons learned on other, similar projects
- iv. Involvement of staff in the change project will help gain employee buy-in to the project and provide them with a greater degree of ownership

1.5 How HRs become innovative through Knowledge Transfer

Innovation is key driver of growth and development of modern organizations. It helps organizations develop according to the changes and requirements of their environment in order to increase business efficiency and maintain business activities in the market arena(Herkema, 2003). In order to advance and have competitive advantages, organizations need to formulate and implement new business strategies that are adapted to environment requirements and strategies of innovation products and processes. Innovation involves the use of new knowledge (internally created and/or acquired externally) in order to improve the performance of products, services, processes, system of work and creating opportunities for growth. In other words, innovation is a process focused on creating new knowledge for the development of commercial solutions (Herkema, 2003).

Innovation is a combination of ideas and knowledge that brings positive changes in organization of work competing in the market and meeting the demands of key stakeholders. The realization of the innovation process involves knowledge-based activities which are essential in creating capabilities for product development (Cardinal, Allesandri& Turner, 2001). Innovativeness of an organization and creating innovations depend primarily on its tangible and intangible resources, as well as its capabilities and competences. Competences of an organization together with the intellectual potential of its managers and employees are its intellectual resource (Dess, Lumpkin & Eisner 2007).

The complexity of innovations requires organizations to increase the volume of knowledge and information which is the basis of their creation. Adequate knowledge management may contribute to the organization's innovativeness as a vital business performance for long-term business success. Explicit knowledge is articulated in formal and systematic language. It can easily be transferred, and shared to other entities in the form of data, specification, manuals, etc. It can be found in plans, projects, patents and databases in an organization (Nonaka, Toyama& Konno, 2000). It can easily be downloaded and applied, but it has also been incorporated into products, technical specifications, drawings or designs. An enterprise, which can quickly transfer explicit knowledge through the organization, creates competitive advantage over the rivals that have a slower transfer. Market knowledge implies knowledge about wishes and demands of customers, their needs and their business processes. The more a business know about their customer and market, the greater the opportunities for invention and innovation. Active monitoring of market signals is very important because it provides opportunities for creating innovation. Market knowledge is useful because:

- i. It provides information about the problems and requirements of customers
- ii. It facilitates estimation of the value of new product/services and of other changes in the market
- iii. It facilitates and improves future communication among an enterprise and its buyers (customers).

Technological knowledge refers to knowledge of manufacturing or production methods and tools. It includes the education level of employees, their work and technological experience. It also includes the adopted technological knowledge which can be acquired through research and development (R&D), engineering, implementation of scientific projects and similar activities. This type of knowledge is more difficult to copy or find in competitive firms. This is because technological knowledge is harder to transfer; and it is developed by certain investments rather than on the basis of collection of generally available knowledge. Possession of technological knowledge is important for identifying opportunities and creating innovation for several reasons:

- i. Increasing capabilities of an enterprise to assess reliability of new technologies and to assess the opportunities by expertise in creating an optimal product range; expertise in realizing the production process
- ii. Achieving more competitive i.e. lower prices of final products or services
- iii. Understanding the competitors' actions faster and better
- iv. Creating inventions which actually represent new opportunities and chances for success in the market.

Development and application of new knowledge is the basis for innovation which confirms the strong link between knowledge and innovation. Enterprises may possess knowledge, as an intangible resource, and transfer it from one organization unit to another, or even to other enterprises. In addition, enterprises can combine knowledge resources and, in that way, add new knowledge to the existing knowledge. Therefore, knowledge is considered a transferable and supplemental resource that is essential for creating innovations. In markets that are rapidly changing, knowledge as a resource has the added value or benefit, because in such conditions it has a higher level of general applicability compared to other resources. Frequent changes in the market provide many opportunities for innovation. In dynamic markets, increased knowledge is associated with superior business performance.

Dialogue and frequent interaction between individuals or groups in organization form the basis for new combination of knowledge and creation of innovations. Due to this interaction, opinions are shared and the atmosphere of cooperation is created, which is very useful for transfer of tacit knowledge. Acquiring knowledge from consumers, suppliers and strategic partners also represents a valuable source for innovation programs and strategies. Cooperation among organizations plays an important role in sharing tacit knowledge, which positively affects innovation capability (Plessis, 2007). Tacit knowledge is very important for innovation and is a focus of knowledge management. However, the problem is that tacit knowledge is always changing and growing with the adopted new skills and experience of individual, so it is difficult to capture and record it. Tacit knowledge has a great value if properly used, because, as a rule, it adds value to the enterprise. Therefore, key individuals (experts) in the enterprise are an important factor for its competitive advantages. In this sense, the ability of an enterprise to increase tacit knowledge and to create preconditions for sharing among employees, within an organizational unit, and among organizational units, is the main task of a knowledge management system (Garry, Adams, Bruce & Lamont, 2003).

Knowledge management system that is supported by IT, together with appropriate management of human resources and other intellectual resources helps solve these problems and supports the creation of social networks in the enterprise, as well as outside the enterprise with external stakeholder in business environment. Skilled and competent employees are generally more willing to contribute with only one part of their knowledge that can be codified and that they are ready to transfer. If the employee is not encouraged, motivated, or even rewarded to allow access to his knowledge, the enterprise cannot use it and incorporate it into future organizational knowledge base. In this context, knowledge management as a system in an enterprise becomes more important. Knowledge management is considered as a valuable tool and its adequate implementation can be in the function of improving the processes of creating and sharing knowledge that are, in fact, a key for innovation (Swan, Newell, Scarborough & Hislop, 1999).

In enterprises which create knowledge, each employee is responsible for creating knowledge, and then his personal knowledge is transformed into organizational knowledge, which then becomes useful for the organization. It is essential that personal knowledge becomes available to others, and that availability constantly exists at all levels in the organization. The enterprise or its organizational segment is not only the user, but also the knowledge creator. Knowledge creation takes place at three levels: individual, group and organizational.

Creating knowledge includes the ability of an enterprise to make new knowledge and expand it across various levels in the organization. This new knowledge is materialized in new products, services and business processes. The creation of organizational knowledge is important for a variety of innovations in enterprises in the future.

However, the uncertainty in the business environment requires creating knowledge in enterprises and its external acquisition. A modern, flexible enterprise should exploit knowledge that is created externally from suppliers, costumers, competitors and external experts, but also successfully create information and knowledge, whereas the members of the organization are carriers of innovation. The process of organizational creation of knowledge should be continuously improved. In this regard, it is essential that the enterprise has the ability to recognize the required type and kinds of knowledge which should be developed in the future in order to be successfully competitive in the market.

Knowledge sharing among the HR in an organization is a very important part of the learning process and creating a basis for realizing innovation. Modern communication technologies such as internet led to the so-called knowledge networking. It is a process of sharing and distribution of knowledge among employees, teams and groups where intensive communication not only expands present knowledge, but also creates new ideas. Knowledge can be improved by organized communication and joining together individuals with different competences and professional interests. Their common engagement on a project can generate many high-quality ideas that otherwise would not have been reached. In this process, employees who are ready to change and accept new insights and experiences are essential. Emphasizing the development of capabilities of members of organization for knowledge sharing is essential for its success in realizing operational activities and achieving strategic goals.

Some theoretical approaches related to the implementation of strategies for knowledge management, mostly focus on the implementation of informational technologies. Knowledge sharing activities cannot only be improved by IT.

Knowledge management is primarily an organizational tool for problem solving which can increase the success of an organization in analyzing, mapping, examining and exploiting knowledge. In the aim of determining the impact of knowledge management on innovation activity of an organization, there is need for looking at the instruments for achieving innovation processes related to transformation and combination of knowledge as its key input. In this regard, it is considered that there is a positive influence of knowledge management on successful usage of resources (physical, financial, human and other intellectual resources) for the creation and implementation of innovations in an enterprise. More precisely, knowledge management should improve the use of intangible resources that will further contribute to a better use of tangible resources in order to create innovation in an enterprise.

Knowledge management is therefore treated as a specific 'meta-resource' of the enterprise, which allows management to create potential for increasing effectiveness and efficiency of using other, available resources in the enterprise (Krstic & Vukadinović, 2008). Accumulation of different resources does not contribute only to market success, but also to their effective and efficient usage. The resources are basis for building competitive advantages only when used across business processes (Ray, Barney & Muhanna, 2004). Therefore, knowledge management can be treated as a specific process for improving opportunities and capabilities of enterprises. Knowledge management as a 'meta-resource' should affect improving the ability of evaluation and exploitation of external knowledge. The absorption of this knowledge is in the function of increasing the level of the existing knowledge in organization. In addition, knowledge management is in the function of creating new resources for innovation implementation and establishing cooperation among individuals and organizational (or business) units for their realization. Knowledge management is, therefore, contained in the internal system of creating and applying innovations in enterprise (Bergeron, 2003). Because of that, it is relevant to emphasize the roles of knowledge management in developing innovation capacity of enterprise.

1.6 Mechanisms/techniques for knowledge transfer

The actual transfer of knowledge includes both face-to-face communication and written media. The choice of media of transfer mechanism is obviously related to the characteristic of knowledge in the sense that for some knowledge it would be more appropriate to apply one of the knowledge transfer mechanism than another e.g. it may be appropriate to apply written media in the transfer of objective knowledge.

The rich communication i.e. face-to-face informal interaction and team-based mechanism can be used to transfer knowledge to human resources in the organizations. This will require individuals or team level visits, sharing of experience and face-to-face interaction or socialization (Nonaka, 1987). Written form involves transfer based on manuals, data-base development, written instructions and blueprints. Manuals and other written media are cost efficient transfer mechanisms.

Face-to-face interaction between individuals and firms allows communication and facilitate knowledge transfer that is experience-based, permits interactive communication, questioning, flexibility and adaptation (Nobel, 1999). According to Almeida and Kogut (1999) transferor people allow exploitation of experiential and tacit knowledge in new locations. Rich communication media allows a better transfer of knowledge that the owner of the knowledge may be unaware of or is unable to express on a written media. Rich communications media is also suitable when partners need to adapt. These adaptations may concern international differences in culture, laws, and business practices. But this is a costly mode to transfer knowledge. Face-to-face communication is made difficult due to traveling costs involved and due to differences in organizational culture, and differences in language. Face-to-face communication is easier to facilitate when two units have an identical organizational culture and differences in language are minimal. This media is also more suitable for transferring more holistic types of knowledge that is knowledge based on words but also facial expression (Huber, 1991; Sharma, 1998), and creating trust between those who transfer knowledge and those who receive it. Face-to-face interaction is required when the knowledge is experience-based. Knowledge transfer based on manuals etc. implies that the knowledge is objective and codified and the cause-effect relationship is established. It should be possible to separate knowledge from the person who acquired it first, and to separate a particular piece of knowledge from its context, too.

While transferring knowledge, consider the type of knowledge to be transferred using the two mentioned media: face-to-face and written, and how it is represented and the processing demands of the transfer task. The first mechanism of interest is analogical transfer (Gentner, 1983).

Analogical transfer is composed of three components: retrieving a prior exemplar, creating a mapping between it and the current problem or situation, and then using that mapping to draw an inference relevant to the application context. The transferred knowledge is typically assumed to be a declarative representation, but it can also include procedural attachments (Chen, 2002). A large amount of empirical work has shown that analogical retrieval is facilitated by the surface similarity to the target scenario (Catrambone, 2002) whereas alignment and mapping is facilitated by the structural similarity (Gentner, Ratterman, & Forbus, 1993). These results suggest that for novices analogy is triggered by near transfer tasks that are similar on the surface and that share the same relational structure.

The second mechanism of interest is knowledge compilation proposed by John Anderson and co-workers (Anderson, 1987). This mechanism acts as a translation device that interprets prior declarative knowledge e.g., advice, instructions, or tactics into a set of procedures that can be used to solve new problems. Knowledge compilation operates through the step-by-step interpretation of a declarative statement that generates new production rules as a side effect. Those production rules are then optimized via rule composition (Taatgen & Anderson, 2002) and the result is a procedural representation of the content of the declarative knowledge given a particular goal. Since knowledge compilation operates on declarative knowledge representations, it can be brought to bear in a wide variety of application contexts because the knowledge has yet to be proceduralized or tied to the goals of a particular problem-solving context. This mechanism embodies a trade-off between applicability and efficiency in that it has wide applicability across many contexts but requires a complicated and lengthy application process to translate the declarative knowledge into a set of actions (Anderson, 1987). Studies has shown that declarative knowledge can apply to a variety of different surface features but is costly in terms of time required to proceduralise that knowledge to the current problem context (Nokes & Ohlsson, 2005).

The third mechanism of interest is constraint violation proposed by Stellan Ohlsson and co-workers (Ohlsson, 1996; Ohlsson, Ernst, & Rees, 1992; Ohlsson & Rees, 1991). This mechanism is also a declarative-to-procedural type of transfer but implements a different set of cognitive processes from those used in knowledge compilation. Constraint violation is a three-part process that involves a generate-evaluate-revise transfer cycle in which a learner uses prior knowledge of the domain constraints to evaluate and correct her or his task performance.

According to the theory, the learner generates an initial solution based on general problem-solving strategies and then evaluates that solution with respect to her or his prior knowledge of the domain constraints. If a constraint is violated, the learner attempts to revise the faulty procedure(s) and generate a new solution. This process is repeated until a correct solution is found that satisfies all of the constraints.

1.7 Linking Human resource management practices with Knowledge Transfer

Knowledge is key element to all the Human Resources and the major reason as to why one company does better than the other. The more knowledgeable employees are in the organization, the more competitive that organization is. If these employees are able to share the knowledge they have with the rest of the team, the organization become more productive. Knowledge transfer helps in promoting a more decentralized structure thus increasing employee involvement through collaboration and learning.

Technology will thrive well where the people there are knowledgeable and competitive. No one can handle machineries unless he/she have the required knowledge. Knowledge makes these employees more innovative and the company productive. Resistance to change is reduced when the HRs realize they can handle anything in the company and world. The HRM practices such as recruitment, selection, placement, performance appraisal, training etc. bring gain because they are professionally handled to ensure the success of the organization.

Selection - The organization, for instance, select people who will transfer knowledge fit guided by some explicit or implicit set of values and competencies. A manager can ensure the following for quick and successful knowledge transfer:-

- i. Pay attention to the person who is transferring the knowledge and pick the right person to do that work. Pick the person who has experience and enough knowledge but if all the people in the organization are knowledgeable, then let all of them teach each other.
- ii. Provide good tools and environment that individuals can use to transfer this knowledge.

Training – the management can train its employees in decision making, problem solving, disaster management etc. To be able to communicate the employees are supposed to be trained on how to articulate words properly so that they can be able to share the explicit knowledge that they have.

The management and employees should be trained on how to evaluate new ideas and opinions. The management should train employees to disseminate and adopt new ideas for the organizational development.

Incentives and rewards—this involves giving employees fringe benefits and monetary rewards that motivate them and this encourages the employees to generate new ideas, participate willingly and work smart.

Job security – the organizations that offer job security retain employees more. This in the process make employees more willing to participate and involve themselves in the organizations' activities.

Remuneration – competitive remunerations encourages employees to share knowledge and this therefore leads to better organizational performance.

Leadership and management—good leadership encourages innovativeness and knowledge transfer.

The HR in such an organization have the willingness to learn and train making knowledge transfer even better and faster and have ability to work as a team. The most common uses of job analysis are in setting up personnel selection procedure, test development and validation and performance appraisal system. With the required knowledge, problem solving techniques and decision making are well utilized. This HR professional will work competently with the others and with the management. In principle, knowledge transfer can be broken down into distinct stages, such as idea creation, sharing, evaluation, dissemination and adoption

1.8 Challenges for knowledge transfer

The traditional disciplines of management do not lead themselves to knowledge management and should be revised so that the knowledge-based competence of a corporation can be managed effectively and efficiently. Traditional notions about strategy, human resource management, finance, marketing etc. should be re-examined to manage knowledge for competitive advantage creatively.

Knowledge management is of two kinds: tacit and explicit. Tacit knowledge involves human processes in knowledge management – creativity, conversation, judgment, teaching, learning etc. this knowledge is difficult to quantify and therefore is difficult to manage in the traditional disciplines which are more quantitative rather than qualitative. Management of knowledge should rely on a new sense of emotional knowledge and care in the organization, the one that highlights how people treat each other and that encourages creativity and playfulness. It throws a challenge to traditional disciplines.

There is very little knowledge that can quantify how knowledge management can specifically contribute to overcoming important management issues corporate leaders are facing today. In fact, managers tend to discuss knowledge management par se without applying it to actual business issues. This has had the effect of their overemphasizing information technology. As a result they fail to learn how knowledge management can actually contribute to solving important business issues such as globalization, corporate governance and corporate change management.

The effective deployment of internal and external knowledge is one of the key challenge firms face today (Doz, Santos & Williamson, 2001) Language barriers as a challenge: the difference in speaking languages. There was a description on how German language source code comments and project documentation were difficult to understand by a vendor based in India. They argue that people cannot share knowledge if they do not share a common language. The ability to share a common language is thus important for success in technology. Lack of a common language between client and vendor can increase chances of lack of understanding and trust. People lacking in English language skills thus hesitate in transferring knowledge in globally distributed teams for instance mismatch in preferred language for conversation, improper verbal communication, different dialects, and sometimes explaining their point in their native language leads to extra problems. Misinterpretation of conversation style is further highlighted as a barrier

A cultural difference is also a challenge in knowledge management: Building a common culture is an issue in organizations. Lack of cultural understanding such as culture influences interpretation of communication, cultural norms can lead to conflicting approaches for problem solving. It is said to hinder client-vendor interaction. Other cultural barriers in an organization are prejudices of employees about novelties that need to be introduced or realized. These prejudices are often related to ideas based on existing know-how.

In cultures where innovation and creativity are appreciated, using other people's ideas or their previous work can be considered unfair and unprincipled even. Reuse of knowledge should not be supported only by values of organizational culture in an enterprise but also by adequate procedures and practices.

Risk aversion is a barrier to knowledge transfer because constant fear of failure leads to a high level of caution. Trust: Trust is seen as an essential enabler for knowledge transfer but when it is lacking, a challenge emerges. For instance when the knowledge source is not perceived as trustworthy, the extent of knowledge transferred is reduced. Based on research, there is a strong relationship between trust and knowledge sharing in organizations.

Coping with novelty increases difficulties in knowledge management and transfer. In outsourced projects, the project knowledge might be incomplete or new due to dynamic and diverse nature of client's requirements. This requires the team members to interact or frequently to exchange knowledge. Communication challenges in knowledge management and transfer. It is intuitive to argue that knowledge management has to be facilitated by frequent communication between the team members. Infrequent communication between the client and the vendor or between human resources and management creates barriers to knowledge transfer.

Other factors that complicate knowledge transfer includes:-

- i. Inability to recognize and articulate compiled or highly intuitive competencies such as tacit knowledge ideas
- ii. Geography or distance
- iii. Limitation of information and communication technologies
- iv. Lack of shared and super ordinate social identity
- v. Area of expertise
- vi. Internal conflicts such as professional territoriality
- vii. Generational differences
- viii. Union-management relations

- ix. Incentives
- x. The use of visual representations to transfer knowledge
- xi. Problems with sharing beliefs, assumptions and cultural norms
- xii. Previous exposure or experience with something
- xiii. Misconceptions
- xiv. Faulty information
- xv. Organizational culture non-conducive to knowledge sharing such as knowledge is power culture
- xvi. Motivational issues
- xvii. Lack of trust
- xviii. Capability

1.9 Knowledge transfer for economic, social and political development: Vision2030, Kenya

With the move of advanced economies from a resource-based to a knowledge-based production, many governments have increasingly recognized knowledge and innovation as significant driving forces of economic growth, social development and job creation. In Kenya and many other developing countries, the promotion of knowledge transfer has increasingly become a subject of public economic policy. The underlying assumptions that there is a potential for increased collaboration between industry and universities is also underlined in much of the current innovation literature. In particular the open innovation approach to developing business value is explicitly based on an assumption that universities are a vital source for accessing external ideas. Moreover universities have been deemed to be the great largely unknown and certainly underexploited resource contributing to the creation of wealth and economic competitiveness.

1.10 Conclusion

Individual level conditions of actions influence the extent to which employees engage in knowledge exchange. Individual-level perceptions of organizational commitment to knowledge sharing and extrinsic motivation directly influence the extent to which employees engage in firm-internal knowledge exchange. Intrinsic motivation and engagement in social interaction significantly mediate the relationship between perceived organizational commitment and knowledge exchange. The HRM can influence such conditions through an overall signaling effect and various practices. It has been found out that, knowledge transfer process via personnel aspects enhances the individual and organizational team competency to generate and transfer knowledge to fit with their recipients' needs.

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