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A Study of Knowledge Management in Education for Research Sustainability – An Overview

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ABSTRACT

Knowledge management in educational institutes is a great combination of intellectual output of the academic researchers. Knowledge management strategy has great potential and significance for academic researchers. In this paper, researchers have taken effort to know about truly relevant research for which academic researchers play inevitable role to transform knowledge and disseminate it through proper channels for practical use. This paper discusses the attributes of academic publications and the articulation of knowledge. The purpose is to identify a number of factors associated with academic publications and research. The theoretical foundation on the importance of Knowledge Management practices for academic researchers is discussed with reference to India. Knowledge management is an emerging field in the academic environment. The researchers have adopted literature review as a methodology to generate strong knowledge base for the study Academic researchers can contribute immensely to knowledge management through various means.

Keywords: *Knowledge Management, research, sustainability, education.*

INTRODUCTION:

According to the World Bank, "Knowledge Management is the management of knowledge through systematic sharing that can enable one to build on earlier experience and obviate the need for costly reworking of learning by making the same repetitive mistakes." KM as an activity has become very vital for developed countries and developing countries leading to sustainability. Research sustainability is the right way to build knowledge. (Cova, B et al, 2009) examined academic branding and its impact on the future of researchers and also stated the significance of the rapid development of so-called "academic brands" in Marketing for the process of academic research and for the work and the careers of researchers. The observations of (Haglund L. & Olsson P., 2008) revealed that most of the researchers used Google for everything, that they were confident that they could manage on their own, and that they relied heavily on immediate access to electronic information.

To support such activities academic researchers have to initiate the development of a strong knowledge base which will be beneficial to develop a network. It is the present need of an organization to transform and recreate themselves by destroying the existing knowledge system and by inventing new ways of thinking and doing. There is a large group of ways in which academic researchers can build a strong knowledge base through research activities like conferences, seminars, articles, project reports, books and thesis etc. The trend for research tools, especially those that contribute to KM, is towards more information. Body of knowledge present in peer-reviewed and indexed journals is utilized in the development of book/textbook content. Difference appears between practitioners and practitioner-researchers due to their publication rate and not by how deliberately each incorporates these steps into routine work habits.

(Webster & Watson, 2002) Patents and publications of universities are the evident fact of research outcome (Geuna & Nesta, 2006). (Bishop, 1999) explored how academic researchers disaggregate and re-aggregate information through research. Journal article disaggregation refers to the ability to access and manipulate individual components of a document, such as its figures, conclusions or references.

KNOWLEDGE MANAGEMENT:

Knowledge management in academics in the real sense is to manage knowledge and to understand what should be done and what are the barriers in the efforts towards research sustainability. (Ruggles, 1998) Information should be used and applied with an experience to add value in to it, in order to become knowledge. Knowledge includes insight and wisdom of employee and could be used for decision making. It is also embedded in work processes, teams. At every organization level, use and sharing of knowledge motivates researchers overall for development of education system and plays a vital role in betterment of institutions. This research work focuses on how academic researchers can contribute positively towards knowledge management leading to research sustainability. Academic researchers can create the direct and indirect knowledge transfer through different ways.

A better understanding about knowledge management can make academic research to be transformed into a form which is understandable to its intended users will allow to bridge the gap between academia and practice. In order to bridge the gap between academic research and practice, it is necessary to explore the direct scholarly knowledge of academic researchers and to identify the mechanisms through which research can be translated and transmitted to practice.

CONCEPT OF KNOWLEDGE MANAGEMENT:

Knowledge management (KM) is an integration of numerous endeavours and fields of study. For right decision making and efficient actions knowledge as an asset for educational institutions can lead to better results and can be used effectively for efficient actions. Through pertinent and significant research it is essential to document knowledge, make it obtainable and available to create a compilation. Instinctive and implicit is tacit knowledge articulated in some written or spoken form. Further, certain complexities in tacit knowledge is clarified as either an 'issue of alertness or perception', and a communication complexity can arise from 'inadequacies of language. (Gertler, 2003)

Any form of knowledge can be a property of an academic institute, or an organizational domain. Each and every mode of translation can act as knowledge formation, expression being the knowledge conception method (Nonaka & Takeuchi, 1995).

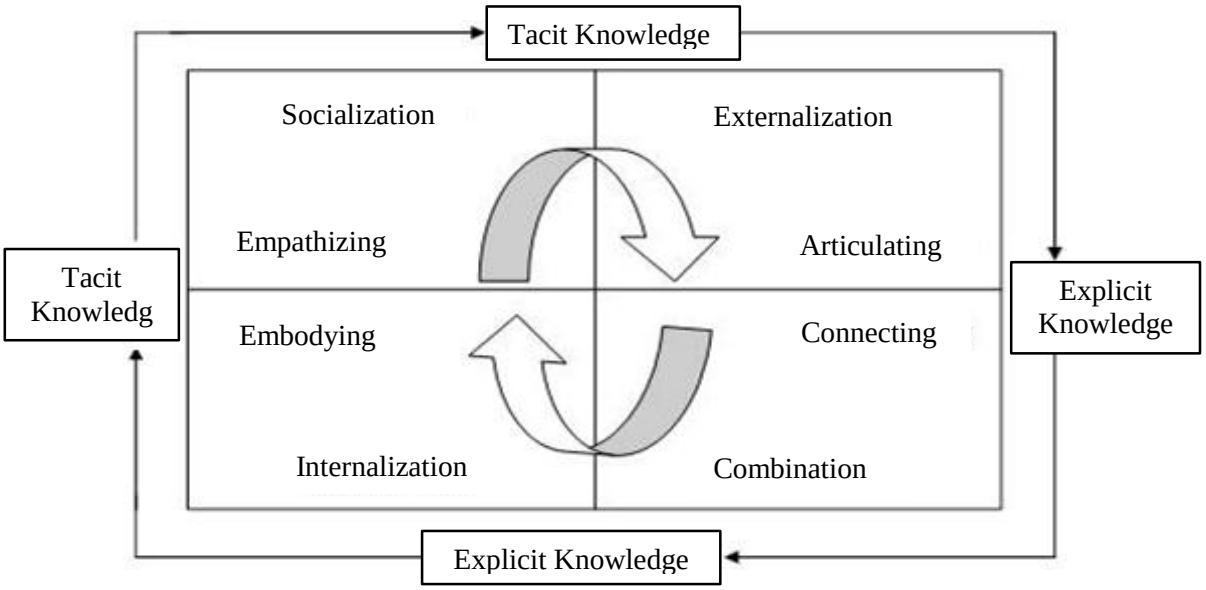

Figure 1: The SECI model (Nonaka & Takeuchi, 1995)

Figure 1 shows the SECI model. The Socialisation Externalisation Combination Internalization (SECI) model was first proposed by Nonaka 1991 and expanded by (Nonaka and Takeuchi, 1995). The varying example of competitive advantage in different eras complement each other with relation to the differentiation of organizational resources as sources of competitive benefit. Optimum utilization of tacit and explicit knowledge can accomplish academic goals by acquiring, measuring, teaching, sharing and applying knowledge. Explicit knowledge can be simply codified and tacit knowledge cannot be easily expressed. Therefore, both knowledge are indispensable for an organization for knowledge transfer assurance.

Sharing knowledge is main in the process of tacit knowledge. Combination is the procedure of putting together concepts into a knowledge system (Yeh et al., 2011). Internalization is the method of embodying explicit knowledge into tacit knowledge (Nonaka & Takeuchi, 1995). Nonaka argues that Knowledge can exist at the level of the individual only; many authors argue that Knowledge can reside in social groups. Spender combined the Tacit-Explicit and the Individual - Group dichotomy to produce a two by two matrix with four generic types of Knowledge. Academic courses and journals are dedicated to knowledge management and organizations have resources committed to knowledge management. (Szulanski, 1996); (Glazer, 1998) view Knowledge as a product or unit based on an economic study.

Elements of Knowledge Management:

Figure 2: Knowledge maturing process in academics and research

Knowledge management factors play a very important role in the knowledge maturing process in academics and research. Information can be filtered and collected rapidly with the use of technology. Learning attitude and the perfect fit in the competency framework for developing research skills using innovation to create knowledge out of information for academicians will consequently result into intellectual capital. To avail the right content and ease of access to knowledge provides value which needs to be supported by collaborative soft ware's to make knowledge management possible. Sharing successful knowledge will not make an organization a knowledge based organization. It is important that academicians establish a culture that believes in sharing.

Role of Knowledge Management in education:

Knowledge management research has imported foundational theories regarding the management of creativity, innovation, organizational learning, organizational memory, and dynamic capabilities Knowledge organization and knowledge intensive organization are the most important concepts of knowledge management for an organization. Every level of organization must transform knowledge. (Nonaka & Takeuchi, 1995) Some organizational structures, as 'knowledge organizations', do the practical implementations of knowledge management (Cole-Gomolski, 1999).Organisation may require to revise the effectiveness of knowledge management.

Transforming knowledge into appropriate decision making and policy action is one of the way to be adopted by educational organisations dedicated to education. To collect, disseminate, share and transfer information at all levels will lead to better accountability and improvement in education. (Petrides & Nodine, 2003). Knowledge is all about mixing experiences and information and should be embedded, accepted routinised in organizational norms (Davenport & Prusak, 1998). Knowledge is commonly classified as explicit, implicit and tacit. Explicit knowledge can be featured in tangible form. Implicit knowledge is in tangible form but could be made explicit. Tacit knowledge is the knowledge which is difficult to set out in tangible form.

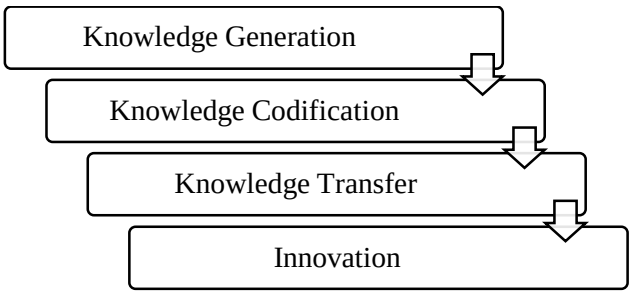

Figure 3: Knowledge Process

Knowledge process includes the following-knowledge generation, knowledge codification, and knowledge transfer/realization for acquisition and development of knowledge. Knowledge codification means making knowledge available and new. Knowledge transfer includes knowledge movement from generation to its use. Knowledge is a concept that is recursive, growing, and often alternating. New information is generated when knowledge interacts with information. The knowledge process fulfills organizational needs. Knowledge maturing process in academics and research. Knowledge management learning environment enhances perpetual sustainability in research for academicians for the following reasons:

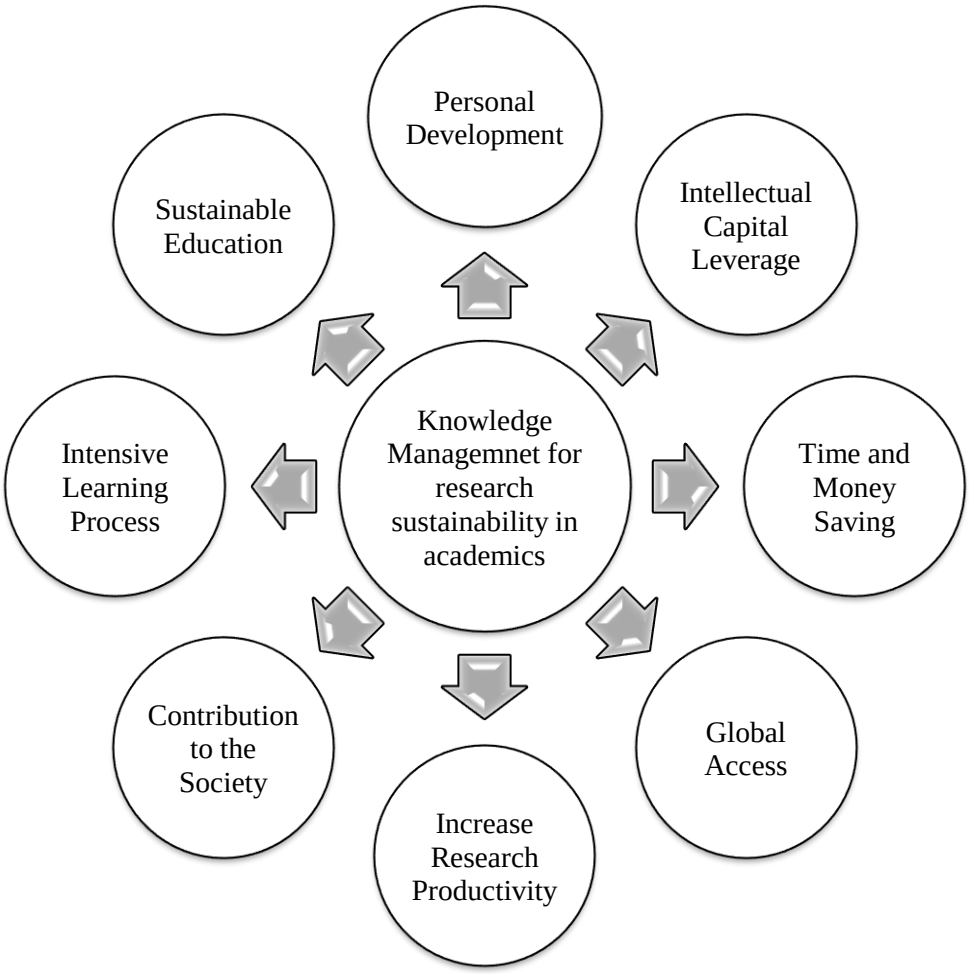

Figure 4: Knowledge management for research sustainability in academics

Figure 4 provides characterizing attributes of academic researchers and techniques available to knowledge management.

Sustainability can be attained through focus on learning, and innovation. A comprehensive knowledge management system can improvise academic results. For a knowledge management effort to work, it

must be implicit that no growth is sustainable unless innovators learn to recognize the systematic strategies for sustaining profound change in order to gain intellectual understanding. Factors related to organizational knowledge management can provide solutions at the global level. Embedding this change is very important for better future prospects to link knowledge management theories with management theories and education. (Browne et al, 1997) discussed knowledge about knowledge management used by human resource managers.
(Wiig K.A.R.L, 1993) stated that knowledge management can promote organizational creativity and effectiveness. It is must to differentiate between professional and organizational knowledge (Tordoir, 1995). Also, organizational knowledge can be verified at different levels of thought for academicians. (Birkett W.P., 1995) The management literature highlights management of knowledge as an organizational source. (Adler, P.S, 1989).

Research Sustainability through Knowledge Management:
Knowledge is permeable: technology is universal; universities are impermeable; the universities regulator is set in concrete. Something has got to give (Hague quoted in Goddard, 1998).The central idea of research sustainability work is to create, codify and share knowledge. Findings of Niu, X. et al, 2010 stated that the biggest changes among Universities is because of increased utilization of electronic methods for searching, sharing, and storing scholarly content, as well as for utilizing library services. The generated information can be used for the growth of academic institutes and society at large. Academic researchers can take the initiative towards the development of knowledge base. In India, academic institutes and universities have started focusing on creating knowledge base through research. The main idea driving KM is that knowledge must be managed like an asset. Thus, academic researchers can act as the translation agents through which academic literature can be enhanced. In addition to peer-reviewed journals, academic researchers utilize other sources, including personal research, experts' opinions, personal experience, conferences, books, and informal discussions with students and peers.
To explore academician's perceptions of knowledge management concepts and its applications to enhance performance in academic research. (Cherney, 2012) studied various factors influencing the use of educational research and how academics can contribute with policy-makers and practitioners in the process of knowledge production and research uptake. Interactions between academics and end-users, the aspects of research collaborations have a significant impact on research use.
(Slaughter & Leslie; 1997) spoke about the concept of academic capital as academic capitalism. (Deem, 2001) has examined the significance of international and local features in the existing expansion of universities in Western countries. Globalization is the latest theoretical stance and should be taken in relating it to education. (Slaughter & Leslie, 1997) covered academic capitalism in their book; how changes in education policies affect access to higher education and impact curricula, research, and institutional autonomy; and financial trends of various institutions. Knowledge management in education is the base for accommodating manuscripts for publication, distributing research funding, promoting staff, hiring new staff, and planning new strategic initiatives. The usual procedures for academic assessment are based upon peer review, which indicates evaluation by colleagues from the same dedicated research community.
Researchers can build the policy gap between expectations and development. Researchers and policymakers work within diverse time lines, use different terminology, perform diverse standards, and anticipate different things from research studies in terms of content and rigour Innovative approaches are encouraged through education for sustainable development in education in order to add to the educational transition towards sustainability through both the formal education system (Buckler & Creech, 2014). The most valuable invention was the desire of academic researchers to contribute to societal development.

CONCLUSION:

Knowledge Management is a dynamic force changing at global level. Knowledge is inclusive of data based on which facts and information is created. In academic life it is important to develop new criteria and ways to assess the quality and impact of problem-oriented research. Developing initiatives to share knowledge for the achievement of organizational objective in higher education just like the corporate sector is the basic need of today. It is also important to address whether higher education is ready to embrace it. (Kidwell, Linde & Johnson, 2000). In turn, researchers can aid policymakers interpret research findings with real facts and

solutions. Organisation culture and values require change to a great extent for impactful knowledge management and to take advantage from knowledge management. Globally, Universities and organisations must focus on creation of global alliances in order to have the competitive advantage. (Rowley, 2000).

LIMITATIONS:

The research limits itself to the inference and basic understanding of the concept at a microscopic level. The current outcome is based on intense literature review and expert opinion.

SCOPE FOR FURTHER RESEARCH:

Following is the offered suggestions for further research:

- A conceptual model can be developed to establish the relationship between knowledge management and research sustainability in academics.
- It can be further extended by using structural equation modeling to validate the conceptual framework.

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