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A Conceptual Framework for Managing Tacit Knowledge through ICT Perspective

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Abstract

In today's global economy, it is crucial for all the organizations to manage tacit knowledge. Nevertheless, quite a number of organizations are unable to cope up with the process of tacit knowledge management. As a result of investigating the level of tacitness of knowledge, this paper has proposed a framework based on media richness theory. This framework facilitates the effective transferring of tacit knowledge in order to utilize it. We have also discussed the suitability of different kinds of tacit knowledge transfer mechanisms and the communication media types, in terms of different degrees of tacitness. The proposed framework aims to help organizations to develop most appropriate tacit knowledge transfer mechanisms for the purpose of accomplishing tacit knowledge transfer and utilization.

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Keywords: knowledge management; tacit knowledge; knowledge transfer; Media-richness theory; degree of tacitness

1. Introduction

In recent years, managers and academics have recognized knowledge as a key source of competitive advantage [1-4]. Knowledge management (KM) has become more essential for organizations, which look forward to be competitive in the business world. Knowledge has been recognized as a primary resource of organizations[5].

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Dealing with knowledge creation, transfer, and utilization will be increasingly critical to the survival and success of corporations [6]. There has been continuous effort from companies and researchers in developing and supporting KM in organizations. Based on these effort, knowledge management systems (KMS) have become most widely accepted as necessary for KM [7]. KMS needs usage of Information and Communication Technology (ICT) for the purpose of managing knowledge. Given the potential of ICT, it is argued that, KMS performs important role in enabling KM initiatives, by providing the right knowledge to the right workers at the right time [8].

It is widely agreed that, data and information are manipulated and processed outside human minds, and can easily managed, while, knowledge emphasizes on cognitive dimension such as: beliefs, values, insights, and experience processed only in the human minds [9, 10]. Knowledge can be categorized in many ways. Perhaps the most widely accepted knowledge taxonomy among researchers and practitioners is the differentiation between explicit knowledge from tacit knowledge, which was first introduced by [11] and popularized by [12], and accepted by many researchers [9, 13-24]

Explicit knowledge is simpler to document and share and easier to replicate. It comes in the form of books and documents, codes, project reports, contracts, process diagrams, white papers, minutes of a meeting, a chain of e-mail correspondence, and policy manuals [25, 26]. In contrast, tacit knowledge relates to the knowledge residing in the heads of individual that is not organized. However, a person becomes aware of his or her tacit knowledge when he/she faces a specific situation or problem. Tacit knowledge is personal and hard to formalise, and is rooted in action, procedures, commitment, values and emotions [12]. Tacit knowledge is the less familiar, unconventional form of knowledge. It is the knowledge of which, we are not conscious. Tacit knowledge is not codified and is not communicated in a language. On the other hand it is acquired by sharing experiences, by observation and imitation [15]. Polanyi [11] has referred to tacit knowledge as something that we do unconsciously, and most of the time we are not aware of its existence such as, how to ride bicycle. Such knowledge is difficult to write or to be codified, and difficult to transfer. He has explained, the individuals can know more than they can tell. Additionally, tacit knowledge is more difficult to transfer than explicit knowledge, because explicit knowledge is theory-based and transmitted in formal, systematic language. According to the knowledge-based literature, the following factors are associated with tacit knowledge: non codifiable, non teachable, and complex [27]

Nonaka and Takeuchi [12] have expanded Polanyi's theory of tacit knowledge to include, cognitive and technical dimensions. The technical dimension developed over years of experience is highly subjective, personal insightful, and intuitive. The cognitive dimension consist of beliefs, perceptions, values, mental models, and emotions and these dimension of tacit knowledge shapes the way we perceive the world around us. However, according to Clarke [28] the main reason that makes tacit knowledge so important is that, it is developed over time by individuals, through experience and understanding gained from working within an environment. Day to day experiences of dealing with company procedures, clients, production and customers etc, develops the knowledge base of the employee. In the same vein, Lifeng [21] have stated that, organizations need to take a holistic approach in managing tacit knowledge in their setups. A number of knowledge management initiatives have been started in recent years to create a purposeful process for capturing, storing, sharing and leveraging what employees know

The study presented in this paper complements the existing tacit knowledge management research from the ICT perspective. The rest of this paper is structured as follows. Section 2 discusses related work followed by a discussion of the Media richness theory and the role of ICT in managing tacit knowledge. Section 4 explains the proposed conceptual framework of managing tacit knowledge followed by conclusion in the last section.

2. Related work

The main challenge in organizational research is to identify, whether it is possible to manage tacit knowledge in order to facilitate the creation of new tacit knowledge, and to externalize that tacit knowledge in a way that will be transferable to other individuals. According to [29], due to the development in information technology (IT) and knowledge management, the last decade has seen a number of knowledge transfer mechanisms and technologies, including, Web 2.0 technologies, KM tools, organizational learning (OL) and Community of Practice (CoP). In addition Juhana [24] has mentioned that, firms apply two approaches that support a good knowledge management initiative programme, first is mechanistic approach; which considers that better accessibility to information is a key, whereby, the emphasis is in enhancing method, to access and reuse of document; while, networking is the key

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