Towards a Theoretical Model of Cross-Cultural Knowledge Management

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Abstract: In a survey by the International Journal of Management Science, editors confirmed that “Knowledge Management (KM) continues to be a strong and viable research field” (King et al., 2006). Parallel to KM, Cross-cultural Management (CCM) has received considerable attention in the international business literature. To date, some researchers have concentrated on the relationship between KM and CCM, such as how to improve knowledge sharing in multi-national companies, or how to utilize knowledge effectively in international joint-ventures. However, there is another remaining aspect which describes a new culture created from the combination of two or many cultures. This new culture has been named as several terms, such as Cultural Synergy, Third Culture, Cultural Hybrid, or Cultural Intelligence. The purpose of this study is to better understand both aspects of the relationship between CCM and KM by providing an adequate definition of CCKM. Then, we use this definition to contribute to building a theoretical model of CCKM. Following that, implications and future research are then discussed.

Keywords: Cross-Cultural Knowledge, Knowledge Management, Fragmentation, Integration, Differentiation and Acculturation

Introduction

Existing as separate fields of scientific research and development, Cross-Cultural Management (CCM) and Knowledge Management (KM) have been receiving increased attention as pivotal tools for the development of multi-national enterprises (MNEs). Prusak et al., (2006) mentioned that “the field of knowledge management has tended to ignore the cultural differences subject, working under the assumption that knowledge is the same thing to all people, at all times, and in all places”, and there have been some studies on KM in the CCM environment, such as how to improve knowledge sharing or knowledge transfer or knowledge processes in multi-national companies (eg., Strach and Everett, 2006; Foss and Pedersen, 2004; Ford and Chan, 2003; Gupta and Govindarajan, 2000; and Simonin, 2004, 1999), or how to effectively acquire knowledge in international joint-ventures (eg., Phan et al., 2006; Berdrow and Lane, 2003; Buckley et al., 2002; Tsang, 2002; and Inkpen and Dinur, 1998). Michailova and Husted, (2002) also emphasized that “the relationship between culture and KM...are not explored in depth in a coherent manner in mainstream texts”, but Rikowski (2007) noted that some studies to date have been concerned with the linkage of CCM to KM.

The linkage between CCM to KM has been studied in the literature from two perspectives: KM from CCM perspective and CCM from KM perspective. We are beginning to see both perspectives as the basis for a preliminary definition of Cross-cultural Knowledge Management.

Therefore, in the present paper, we propose and build a theoretical model of CCKM by combining both the above perspectives. We use a three-perspective conceptualization of culture (integration, differentiation and fragmentation) proposed by Martin (2002) and acculturation as factors in the process of creating a new culture adept at adjusting to cross-cultural environment.

Towards a Definition of Cross-Cultural Knowledge Management

To begin, this work provides a brief review of the literature on two views of the relationship between CCM and KM. First, we review some literature on KM from CCM perspective. Then, some studies which consider culture as knowledge or CCM as a form of KM, will be reviewed to examine this positive, new perspective.

KM from CCM Perspective

Long et al., (2000) have linked culture to knowledge by identifying “four ways in which culture influences the behaviors central to knowledge creation, sharing and use”. The first way showed that “cultures and subcultures shaped assumptions about what know-
ledge is and which knowledge is worth managing”. The second way confirmed that “culture defines the relationships between individual knowledge and organizational knowledge”. The third way introduced that “culture creates the context for social interaction that determines how knowledge will be used in particular situations”. The fourth way suggested that “culture shapes the process by which new knowledge – with its accompanying uncertainties – is created, legitimated and distributed in organizations”. Long et al.,’s research has “demonstrated the importance of the cultural perspective on many of the issues central to effective KM”.

Dhanaraj et al., (2004) also showed that tie strength, trust, and shared values and systems play important roles in the process of tacit knowledge transfer in international joint-ventures.

Ford and Chan (2003) conducted a case study on knowledge sharing in a multi-cultural setting. Their result shows that language differences, which are considered to be one of the first indicators of different cultures “can create knowledge blocks, and cross-cultural differences can explain the direction of knowledge flows”.

Prusak et al., (2006) have reported some cross-cultural continua which are useful for the purpose of KM. These continua (such as individualistic-holistic, short-term-long term, high-context-low context, public-private, shame-guilt, agency-destiny, direct-indirect, tangible-intangible, loose-trust-high trust, local-cosmopolitan, universalist-particularist) are based on national, regional and also organizational culture. These continua have been related to three categories of KM (Knowledge Development, Knowledge Retention and Knowledge Transfer). The purpose of Prusak et al.,’s article is also to point out the importance of recognition and appreciation of cultural differences in order to improve and enhance KM activities.

The book “The Impact of Organizational Culture on Knowledge Management” of Plessis (2006) created a new term “Knowledge Management Culture”, which is defined as “making sharing the norm in an organization”. Plessis also pointed out that knowledge creation and a knowledge sharing culture bring about change in organizations. The aim of knowledge management is “to create methods, practices and culture that utilize the ability of chaos”. Chaos is considered as “an imperative precondition for a new perspective or mindset”. This book emphasized the “very powerful element of culture in implementation of KM”.

Recently, the latest book of Pauleen (2007) described cross-cultural perspectives on KM. This book explored the relationships between KM and CCM, such as the relationships between national culture, organizational culture and KM, or the relationship between cultural learning and knowledge. This research confirms again that “cross-cultural knowledge is very often problematic, but it also provides a more positive outlook by showing that cultural differences are not just barriers to knowledge transfer, rather, they can also provide a stimulus to learn from and with others from different cultures”.

Also in 2007, Rikowski’s work continues “to highlight some of the most important work being undertaken on cultural theories, and how this work can be applied to KM”.

As has already been pointed out, numerous theoretical and empirical studies have examined the relationship between CCM and KM to investigate the impact of culture on KM. Therefore, these studies only concentrate on one aspect of this relationship. Cross-cultural environment in this aspect has only been seen as a barrier to KM. However, there is another remaining aspect which describes a new culture created from the combination of two or many cultures. This new culture has been named by several terms, such as Cultural Synergy, Third Culture, Cultural Hybrid or Cultural Intelligence.

**Culture as Knowledge**

By reflecting on the underlying nature of culture, Sackman (1991) has described culture as a knowledge based on the cognitive perspective of the concept of culture in organizations. Sackman regarded the accumulation of cultural knowledge as being composed of dictionary knowledge, directory knowledge, recipe knowledge and axiomatic knowledge. The characteristic questions which correspond to these types of knowledge are “what is”, “how are things done”, “should” and “why things are done the way they are”, respectively. The integration of these types of knowledge created a cognitive map which was considered by Sackman as “experientially developed theory for understanding, explanation, and prediction”. According to Sackman, given cognitions are held by individuals, cultural knowledge has an “aspect of collectivity”, as she explained that “individuals draw on those frames of reference that they have learned and acquired over the years. These may have emerged in different socialization processes: within the family, growing up in a specific region and country, belonging to a certain ethnic group, having experienced a certain kind of education and professional training”. Cultural knowledge also has another aspect, which is described as the capacity of learning “by new members who may also import cultural variety into the organization”. To have cultural knowledge, it requires a mutual understanding, communication and effective coordination in a social system.
Casmir (1993) presented a model for building “new, effective and mutually acceptable and beneficial third cultures through interactive intercultural processes”. This scholar noted that his model is necessary for individuals when they want to “make responses to their environment as well as to human needs within that environment”.

In addition to Casmir’s ideas on the third culture through intercultural process, Adler (2002) used Cultural Synergy to describe “the situation from each culture’s perspective, culturally interpreting the situation, and developing new culturally creative solutions. According to Adler, Cultural Synergy can find new solutions to solve problems that “leverage the cultural differences among all cultures involved while respecting each culture’s uniqueness”.

By using a simple example from the combination of two chemicals, Holden (2002) made an analogy to CCM. Unlike previous scholars who tended to assume that a combination of different cultures must result in culture shock, friction and misunderstanding, Holden proposed a new view of CCM which “is much more concerned with a new cultural hybrid”. According to Claes (2004), the importance of Holden’s research is that culture has been seen as dynamic, not static or deterministic as in the literature. From this positive viewpoint, Holden saw CCM as a form of KM. According to Holden, “CCM as the management of multiple cultures and among organizations, involving processes of knowledge transfer and organizational learning. These activities facilitate the functioning of networks which are composed of an inconceivably large number of overlapping social and information networks linking people and organization worldwide...The core task of CCM is to facilitate and direct synergistic action and learning at interfaces where knowledge, values and experience are transferred into multicultural domains of implementation”.

Earley and Ang (2003) also developed and presented a new concept, “cultural intelligence”, to “understand why some people are more adept at adjusting to new cultural surroundings than others”. This theoretical model includes both process and content features. Cognitive, motivational and behavioral facets are elements in the general structure of this model. In the process of this model, they also presented two general categories of knowledge, including declarative knowledge which is “information about the characteristics of an entity” and procedural knowledge which “describes the way something functions”.

Culture as Distributed Knowledge was mentioned by Chiu et al., (2005), in research on Culture Competence. Culture is used “to designate a coalescence of loosely organized knowledge (or learned routines) that is produced, distributed and reproduced among a collection of interconnected individuals”. In addition, they argued that “these learned routines are not just personal knowledge in the heads of individuals but they are shared, albeit incompletely, in a delineated population”.

Building a model of cross-cultural competencies, Kayes et al., (2005) identified the competencies necessary to effectively acquire cross-cultural knowledge. The cross-cultural knowledge absorption competencies model is an integration of studies on cross-cultural competencies, experiential learning and knowledge absorption. Also, using the term “cross-cultural knowledge transfer”, Almeida et al., (2002) developed a model which explains the important influence of culture on knowledge transfer at three levels such as national, regional and organizational levels.

The term “Cross-Cultural Knowledge” (CCK) started to appear in some studies, but a definition of CCK has not been adopted yet. Based on the above terms such as Cultural Synergy, Third Culture, Cultural Hybrid or Cultural Intelligence, we understand the term CCK as a new culture created from cross-cultural differences. This understanding points out the positive views of culture as well as the capacity of the nature of culture.

**Cross-Cultural Knowledge Management Definition**

In putting the two above perspectives together, our review leads us to start by defining CCKM as:

Cross-Cultural Knowledge Management (CCKM) is composed of a series of practices to recognize cultural differences, using awareness and understanding of cultural differences to develop a new culture adept at adjusting to cross-cultural environments. This new culture improves and enhances Knowledge Management activities.

**Towards a Theoretical Model of Cross-Cultural Knowledge Management**

Understanding CCKM as in the above definition is the foundation to build a theoretical model of CCKM. As defined above, the theoretical model of CCKM will focus on the process of creating new culture from the recognition and understanding of cultural differences, as a knowledge management tool. To do so, we use a three-perspective theory of culture proposed by Martin (2002) to develop a set of factors that influence cultural adjustment as a cross-cultural knowledge.

**A Three Perspective Theory of Culture**

Martin (2002) has proposed three perspectives of culture including Integration, Differentiation and
Fragmentation. The Fragmentation Perspective has been explained as ambiguity and uncertainty of values and beliefs. The Differentiation Perspective has been described as the separate and distinct values of sub-cultures that may be in conflict with other sub-cultures, or even with the dominant culture. The Integration Perspective has been considered as “an oasis of harmony and homogeneity” of values and beliefs shared throughout an organization. According to Martin, these three perspectives of culture can be taken together. Martin also emphasized that the combination of three perspectives is much better than one perspective because each perspective provides a supplement to the others and all three are useful for the analysis of studies on organizations. She even suggested that using all these above perspectives may be applicable widely to fundamental processes. In addition, Martin indicated that there have been some studies which used this three-perspective theory of culture to examine a variety of contexts, such as the birth of a culture in a company or the relationship between culture and innovation. Therefore, we used these three perspectives on culture to examine the relationship between CCM and KM.

The appearances of ambiguous and uncertain interpretations and manifestations are inevitable when an individual encounters a new culture (Martin, 2002), because each individual can interpret the manifestations in a number of different ways. The interpretations of an individual are based on their experiences of similar situations. However, when an individual enters into a new environment such as a new country (national level), a new company (organizational level), or a new group of a different profession or occupation (sub-cultural level), a similar situation can be interpreted in different ways because of different national culture, organizational culture or sub-culture. As Adler explained, “culture strongly influences how we interpret situations”. The ambiguity and confusion of people first encountering a new culture were also explained by Brislin (1981) and Ehrenhaus (1982; cited by Adelman, 1988) as “unfamiliar behaviour and demands in the new environment” or as a result of lack of “cognitive schema for seeing a recognizable response pattern or result in attributions that ignore the cultural context”.

Adler even showed the process of cross-cultural communication, in which she described the messages of a person from one culture to a person from another culture that are limited because different countries recognize, interpret and estimate situations differently. We further extend this process for a better understanding of the fragmentation view in the multi-level analysis shown in Figure 1. The distances between sent message and received message and between sent response and received response, manifest the ambiguity of translating meanings into words and behavior.

To understand the other’s culture, as well as to reduce ambiguity and uncertainty, integration is the next step for any individual when entering a new culture. Integration has been defined as social participation in the host environment (Kim, 2003). Kim said that integration as a task is “essential to achieving more complete and realistic understanding of what happens and how it happens, to individuals in an unfamiliar cultural milieu”. The Integration view...
therefore provides individuals from other national cultures, other organizational cultures, other professional cultures, or other occupational cultures the opportunity to share values, beliefs and behaviors, in order to better interpret and better understand other cultures.

However, as Martin (2002) noted, the integration approach can’t be sustained, because of differences in sub-cultures, such as professional or occupational cultures. We have to emphasize that our study uses the integration view in the cross-cultural context. Therefore, integration is difficult to maintain, due not only to different sub-cultures but also to different national cultures, which lead to different values, beliefs and behaviors. Martin even said that differentiation was hidden in the integration step. She pointed out that not only differentiation perspective, but also all three perspectives were hidden perspectives, as well as that all three perspectives were relevant.

Applying the three perspective’s views of cultural change to the birth of a start-up company, Martin (2002) analyzed explicitly the cultural change process, as well as the combination of these perspectives. We argue that the cultural change process is also a process to gain cross-cultural knowledge, which we describe as a new culture that is created from adaptation and adjustment when entering a cross-cultural environment.

**Acculturation**

Kim (1992) defined acculturation as the “establishment of an intercultural identity for an immigrant, sojourner or international assignee who successfully integrates into a new environment. Intercultural identity is achieved when an individual grows beyond their original culture and encompasses a new culture, gaining additional insight into both cultures in the process”. In Moran et al., (2007), acculturation is also seen as an effectively adjustment and adaptation to a specific culture.

The success of integration into a new environment can be seen as the capacity to solve problems in cultural differences, as described in “Cultural Synergy” of Adler (2002), as well as the adjustment and adaptation to new cultural surroundings, as shown in the “Cultural Intelligence” of Earley (2003). Creating “a new culture gaining additional insight into both cultures” can be understood as the Third Culture of Casmir (1993) or the Cultural Hybrid of Holden (2002). As mentioned above, in the section “Culture as Knowledge”, many new terms such as Cultural Synergy, Third Culture, Cultural Hybrid, and Cultural Intelligence are presented to describe the capacity to create a new culture from a cross-cultural environment. Therefore we use the term “acculturation” for cultural knowledge creation in the process of managing cross-cultural knowledge.

The term “acculturation” is employed here to refer to intercultural adaptation, by which individuals adjust their behavior to facilitate understanding and decrease the probability of being misunderstood when entering a new cultural environment.

**Toward a Theoretical Model of CCKM**

By linking three perspectives of cultural theory and acculturation, we propose a theoretical model of CCKM as shown in Figure 2, below.

![Figure 2: A Theoretical Model of Cross-Cultural Knowledge Management](image-url)

As depicted in Figure 2, the starting point when individuals as well as organizations encounter a new culture is the Fragmentation view. This means the ambiguities and uncertainties of the Fragmentation view represent as first impression. At this time, the Integration view as a tool to reduce ambiguous and uncertain interpretations and manifestations is hidden, although it will appear as the next step. The
differentiation perspective that recognizes the existence of many differences within departments and professions in an organization is hidden at the time of integration. After the recognition of different cultures in the differentiation step, individuals and organizations adjust to adapt to the cross-cultural environment, as well as to create a new culture, gaining additional values from two or various cultures. These adjustments and adaptations are described by the term “acculturation”. However, as with any creation, this new culture including adjustment and adaptation to a new environment still contains ambiguity and uncertainty regarding its change. The fragmentation view is also hidden in the acculturation stage. We therefore argue that cross-cultural knowledge is created in a spiral, which provides improvement and enhancement of KM.

It should be noted that there are two ways to recognize that this spiral improves and enhances KM. The first way is to see that each perspective in the theory of culture, such as Fragmentation, Integration and Differentiation, can effectively influence on the management as well as influence the creation of knowledge itself. Nguyen (2007), for instance, has discussed KM from the above perspectives, aiming to link perspectives of Fragmentation, Integration and Differentiation to Knowledge Creation process (SECI model) built by Nonaka and Takeuchi (1995).

She recognized that in Nonaka and Takeuchi (2004)’s work, fluctuation and chaos are the conditions for promoting the knowledge spiral. Ambiguity and creative chaos have also been used by top management in Japanese company, as Nonaka and Takeuchi noted. She then linked the Fragmentation perspective as “a treatment of ambiguity” to the conditions for organizational knowledge creation of Nonaka and Takeuchi. To link the Integration perspective to SECI model, she looked into socialization and externalization process. She recognized that the characteristic of socialization as “shared direct experiences such as spending time together or living in the same environment” (Nonaka and Toyama, 2004) and the externalization as integral phase are closely related to the Integration perspective, which describes value sharing of members in organization. To connect the Differentiation perspective with SECI model, she analysed that differences in sub-cultures, such as different jobs, different occupations from the Differentiation perspective can cause various contradictions from which knowledge is created. The second way to see how cross-cultural knowledge improves and enhances KM is to prove the new culture acquired from acculturation makes a contribution to KM. This way will be further studied in details in our future work.

**Conclusion**

Schein (1992) noted that there have been many definitions of organizational culture, and also many models related to the processes for creating, managing and changing culture. Taking a first glance at our paper may make readers think about such definitions and models, as in many previous studies. However, we argue that our study has a different purpose than previous studies on organizational culture, as noted by Schein. The purpose of our study is to explore cross-cultural adjustment as a creation of a new culture in a cross-cultural environment for improving and enhancing KM activities. This exploration is based on the use of a three-perspective framework as a valuable tool to enter a new culture, and uses cross-cultural knowledge to improve and enhance KM. Our proposed theoretical model not only explains the process of cross-cultural knowledge management at the individual level, but also applies at the organizational level, because three perspectives, including Fragmentation, Integration and Differentiation, are taken from the organizational level.

This study may have both theoretical and practical implications for researchers interested in the role of cross-cultural management in knowledge management, as well as for those using KM in the process of creating cross-cultural knowledge. The definition and theoretical model of CCKM in this paper can make a theoretical contribution to better understanding and to a novel view of the relationship between CCM and KM. Regarding the combination of KM from CCM perspectives and CCM from KM perspectives (culture as knowledge), we can see both negative points (conflicts of cultural differences) and positive points (a new culture created from cultural differences) of the culture. Combining the two above perspectives may lead us to developing KM in a new way, that can be applied to practice in utilizing and creating cross-cultural knowledge for KM activities. For example, expatriate managers in multi-national companies can use CCKM to manage knowledge activities. On the other hand, by linking CCM to KM, researchers on CCM can use a KM approach to manage cross-cultural differences, as well as cross-cultural knowledge. We expect that using the above definition and theoretical model of CCKM to investigate its application for cross-cultural leadership in general, and for expatriate managers in particular, is our future work.
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