Managing Tacit and Explicit Knowledge

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Organizational learning forms an essential aspect and it is this ability that helps build the required knowledge resource to sustain growth and long term survival in the competitive environment. Most of the experts working in the area of Knowledge Management (KM) believes that the extent to which knowledge is accessible is the major distinguishing factor among organizations. The strategic orientation of different firms is significantly related to the type of knowledge base they exploit and share. Particularly we argue that knowledge (K) is predominantly explicit in defenders or cost leaders (Miles and Snow, 1978; Porter, 1980) and it is implicit in differentiators (Porter, 1980) and innovators (Miller and Roth, 1994). We also suggest that culture is important in KM. We give interesting propositions regarding KM such as use of Information Technology, collectivism and formalizing key aspects of K.

Keywords: Knowledge, Tacit, Explicit, Strategy

1. Introduction

In the current dynamic business environment, characterized by stiffer competition, sustainability remains a big issue (Muthuveloo et al., 2017). Organizational performance has been a driver of sustainability. This performance depends on knowledge culture embedded in organizations. KM seeks to manage, share and disseminate the various kinds and sources of knowledge within organization. Most of the past researches emphasized on mainly two types of knowledge predominant in organizational cultural settings i.e. Explicit and Tacit. Explicit knowledge refers to the documented knowledge stored in manuals and books. Tacit knowledge is regarded as a key resource for firms and plays a significant role in shop floor, where employees develop and apply this tacit knowledge in daily duties and activities through experiences and interactions (Nakano et al., 2013). We argue that explicit knowledge codified into manuals/books in a company, predominant in cost leaders (Porter, 1985). On contrary, tacit knowledge is held by a person/group of persons due to the specialized training, they underwent for a very large number of years and others cannot internalize it quickly is found in differentiators/innovators (Porter, 1980; Miller and Roth, 1994). In this paper we throw a brief light on how to manage these two streams of knowledge

2. Literature Review on Organizational Strategy

Strategy is defined as the pattern of planning and execution of various activities for achieving long term objectives and targets. Organizations implement and operate on diverse strategies for fulfillment of their objectives. These strategies are reflected from the characteristics of their products and services; specific ways of execution of functional activities within organizations. A lot of work has been done to classify the various organizational strategies based on a number of factors starting from the significant contributions made by Mintzberg, 1978; Miles and Snow, 1978; Porter, 1980; Miller and Friesen, 1984; Gupta and Govindarajan, 1982,1984,1985; Miller and Roth, 1994. Our research framework takes into consideration three prominent strategic typologies exhaustively studied in literature i.e. cost leaders, differentiators and innovators. Cost leader type organizations compete on cost and charge the lowest than competitors. They adopt vertical integration to distribute their products and significantly reduce distribution overhead costs. These organizations emphasize on achieving technological efficiency through procurement of high capacity, efficient and modern manufacturing facilities to facilitate cost reduction. They implement continuous improvement strategies in their existing and narrow range of products. Differentiators, on other hand aim for product/service differentiation by introducing attributes which contributes to the uniqueness of products based on their customer requirements. They relatively spend more on sales force expenditure, advertising and promotional activities. These organizations are supported by a strong research and development function. Finally, Innovators as proposed by Miller and Roth (1994) are the organizations who extensively innovate new technologies and are market leaders for innovation based products.

3. Literature Review on Knowledge Management (KM)

An organization’s competitive positioning and the extent of market penetration depends on the degree to which
it can assimilate, share and exploit knowledge within its organizational culture. Knowledge is an end result of value adding interactions among employees or between different functional groups within an organization. The basis of knowledge management during a short-term period results in efficient exploitation of existing resources, while in a long-term period it results in strengthening organizational development (Sohrabi and Naghavi, 2014). Most of the studies in literature distinguishes between two broad categories of knowledge types i.e. Explicit and Tacit. Polanyi (1966) was one of the earliest researchers who described about these knowledge types, their related issues and management. Explicit knowledge is the type of knowledge which is well documented in form of data, formula, and specific instructions preserved systematically for future references. On contrary, tacit knowledge refers to the implicit or hidden knowledge which generally resides in minds of individuals. Tacit knowledge is gained over long span of time as a result of individual’s actions, experiments and experiences. Knowledge management deals with management of various knowledge types, their sources, assimilation and means of conversion of tacit into explicit knowledge. Table 3.1 shows a summary of studies conducted on knowledge and its categorizations.

**Table 3.1 Literature Review of the Various Studies Conducted On Knowledge Management and Its Categorizations (Sohrabi and Naghavi, 2014)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Contributions or summary of findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>Nelson</td>
<td>Part of knowledge exclusively remains in the domain of individuals. This knowledge can never transferred completely but merely understood by people.</td>
</tr>
<tr>
<td>1992</td>
<td>Kogut and Zander</td>
<td>Explicit knowledge is easy to access and transfer and also known as “knowing about”, subjective or declarative knowledge.</td>
</tr>
<tr>
<td>1995</td>
<td>Nonaka and Takeuchi</td>
<td>In their model, knowledge is made be changing tacit knowledge into explicit knowledge. This model was named SECI, which stands for socializing, externalizing, compounding and internalizing.</td>
</tr>
<tr>
<td>1998</td>
<td>Leonard and Sensiper</td>
<td>Tacit knowledge is a key contributor in organizational knowledge management, and understood as subjective, informal and internalized. It is related to our social and physical experiences, cognitive abilities, somatic skills and mental and physical perceptions. It is more personal, experimental, context specific and hard to formalize.</td>
</tr>
<tr>
<td>1999</td>
<td>Miller and Morris</td>
<td>Knowledge is an intersection of three factors i.e. information, experience and theory.</td>
</tr>
<tr>
<td>1999</td>
<td>Cook and Brown</td>
<td>Organizational knowledge is separate from organizational awareness. They state that knowledge is a phenomenon which a person has presented as data ontology. They argued that in addition to existing knowledge, there is a principle in knowledge that cannot be possessed by described samples.</td>
</tr>
<tr>
<td>2000</td>
<td>Lee and Yang</td>
<td>Knowledge is more complicated than information based on personal understanding which is under the influence of personality and characteristics of its owner. And according to judgements and evidences, it consists of beliefs, inclination and behaviour.</td>
</tr>
<tr>
<td>2000</td>
<td>Haldin-Heggard</td>
<td>At an organizational level, tacit knowledge is presented not only by a person but also by processes, cultures and values.</td>
</tr>
<tr>
<td>2001</td>
<td>Kluge</td>
<td>For completely understanding a written document (explicit knowledge), often a great deal of experiences (tacit) knowledge is needed.</td>
</tr>
<tr>
<td>2001</td>
<td>McAdam, R. and Reid</td>
<td>Management process of tacit knowledge in contrast to explicit knowledge has fewer phases. Although, the process of developing knowledge is the same for both types, but there are main differences hidden in the way of disseminating knowledge. The best situation of disseminating tacit knowledge is through apprenticeship conversation, meetings, informal negotiation, gatherings, lectures and education.</td>
</tr>
<tr>
<td>2004</td>
<td>Kikoski and kikoski</td>
<td>According to them, there are two types of tacit knowledge i.e. fast tacit knowledge and slow tacit knowledge. Fast and slow tacit knowledge works by using implicit cognitive process and reflexes.</td>
</tr>
<tr>
<td>2005</td>
<td>Iske and Boersma</td>
<td>Knowledge is made by interpersonal interactions of persons (previous experiences, evidences, inclinations, information, imaginations and thoughts) and results from imagining the future.</td>
</tr>
<tr>
<td>2005</td>
<td>Chua</td>
<td>Insights, evidences, beliefs, personal skills are examples of tacit knowledge.</td>
</tr>
<tr>
<td>2008</td>
<td>Law and Eric</td>
<td>Sharing knowledge at personal level is more important for an organization. Because an organizational knowledge is formed by individual’s knowledge and if it is unavailable.</td>
</tr>
</tbody>
</table>

Zack (1999) further categorized the knowledge resource possessed by different organizations into three broad categories i.e. basic knowledge, advanced knowledge and innovative knowledge. Basic knowledge refers to the minimum level of required knowledge for various business activities. This kind of knowledge resource cannot guarantee a stable competitive position in the long run. Advanced knowledge refers to a kind of knowledge whereby organizations can remain in competition. This specialized knowledge possessed by organizations in addition to the basic knowledge helps in making a differentiation against competitors. Innovative knowledge drives and foster the entrepreneurial and innovation driven culture within organizations.

### 4. Literature Review on Dimensions of Organizational Culture

This section reviews the literature on organizational culture and various views given by past researchers. Taylor (1889) defined culture as “that complex whole which includes knowledge, belief, art, morals, law, custom and
The term “organizational culture” was first coined by Margulies (1969). Since then a number of researchers visualized the concept of organizational culture along different dimensions (Table 4.1).

Table 4.1 A Summary of Culture Typologies from literature (Verma, 2016)

<table>
<thead>
<tr>
<th>Authors</th>
<th>Culture type</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handy (1976)</td>
<td>Power, Role, Task and Person culture</td>
<td>Power distribution</td>
</tr>
<tr>
<td>Deal and Kennedy (1982)</td>
<td>Tough guy/Macho culture, Work hard/Play hard culture, Process culture and Bet—the-company culture</td>
<td>Management</td>
</tr>
<tr>
<td>Schein (1985)</td>
<td>Artifacts, Values, Basic underlying assumptions</td>
<td>Groups</td>
</tr>
<tr>
<td>Scholl (1987)</td>
<td>Stable, Reactive, Anticipating, Exploiting and Creative culture</td>
<td></td>
</tr>
<tr>
<td>Hampden-Turner (1990)</td>
<td>Role, Power, Task and Atomistic culture</td>
<td></td>
</tr>
<tr>
<td>Hofstede (1991)</td>
<td>Power distance, Individualism/Collectivism, Uncertainty Avoidance, Masculinity/Femininity and Confusion Dynamism</td>
<td>Demographic, Economical, Political and Geographic</td>
</tr>
<tr>
<td>O’Reilly, Chatman and Caldwell (1991)</td>
<td>Innovation, Stability, Respect for People, Outcome Orientation, Attention to Detail, Team Orientation and Aggressiveness</td>
<td>Values</td>
</tr>
<tr>
<td>Denison and Spreitzer (1991)</td>
<td>Group, Developmental, Hierarchical and Rational culture</td>
<td>Control and flexibility</td>
</tr>
<tr>
<td>Harrison (1993)</td>
<td>Role, Achievement, Power and Support culture</td>
<td>Organization development</td>
</tr>
<tr>
<td>Cameron and Quinn (1999)</td>
<td>Clan, Adhocracy, Market and Hierarchy</td>
<td>Values</td>
</tr>
<tr>
<td>Parry and Proctor-Thompson (2003)</td>
<td>Transformational Culture and Transactional Culture</td>
<td>Approach to change</td>
</tr>
<tr>
<td>Robinson (2012)</td>
<td>Collaboration, Control, Cultivation and Competence</td>
<td></td>
</tr>
</tbody>
</table>

Our research framework takes into consideration, the cultural dimensions common to most of the earlier studies i.e. Power Distance, Uncertainty Avoidance, Collectivism, Bureaucracy and Adhocracy. Power distance refers to the extent to which the less powerful members of institutions and organizations within the country expect and accept the power is distributed unequally (Hofstede, 1980). This dimension reflects the inequality of power and authority distribution within organizations. High power distance indicates restricted form of communications, more formal system of work and dominant rules and regulations. On the other hand, low power distance indicates free flow of communications within various levels of organizations. Uncertainty avoidance refers to the extent to which people feel threatened by uncertainty and ambiguity and tries to avoid such situations (Hofstede, 1991). Individualism/Collectivism refers to the form of relationship between the individual and collectivity in a given society. The level individualism/collectivism determines the relationships among members in an organization. Mintberg (1983, 1992, and 2009) differentiated between bureaucracy or the machine type organization and adhocracy or innovative type organization. The level of standardization defines a machine or bureaucratic organization culture. Work is formalized with well-defined procedures, the decision making authority is centralized, jobs are clearly defined with process planning and grouped according to functional departments. Within this type culture, organizations have a tight vertical structure. Large manufacturers often fall under machine type organizations or bureaucratic culture. On the other hand, adhocracy or innovative type organizations bring experts from a variety of functional areas to form creative functional teams. Mostly, decisions are decentralized and power is delegated wherever and whenever required. The main advantage of adhocracy culture is that they maintain a huge pool of talent who can be drawn at any time to solve problems and work in a flexible way. Adhocracy culture can respond quickly to changes by employing skilled experts.

5. Theoretical Framework and Hypothesis Development

A systematic study of the existing literature on organizational strategy, knowledge management and organizational culture reveals the reveals the research gap that there is no significant study that draws a relationship between strategy, knowledge management and cultural dimensions within organizations. This study focuses on establishing these relationships.

Patterns exists in cost leaders. These strategic group focus on explicit knowledge. On contrary, differentiators and innovators type strategic groups focus on implicit or tacit knowledge by heavily pursuing market research surveys and research and development activities. Additionally, it is to be noted that in case of continuous innovation (as practiced in cost leaders), has high explicitness when continuous innovations are happening at not
so high pace. However in cost leaders, as in Toyota production systems, if continuous innovations is happening at a very high pace, then it will remain implicit. Therefore, we hypothesize

**H1:** Cost leaders will have predominantly explicit knowledge and differentiators/innovators will have predominantly implicit knowledge.

Organizational strategy is essentially related to specific dimensions of culture i.e. power distance, uncertainty avoidance, adhocracy as is evident from literature. However, evidences suggests that tacit and explicit knowledge is also influenced by the organizational culture. Organizational culture defines the way knowledge will be assimilated and shared within the various functions of organizations. Therefore, we hypothesize:

**H2:** Tacit knowledge is fostered by low Power Distance, low Uncertainty Avoidance, and high on collectivism; and low on bureaucracy; and high on adhocracy. And explicit knowledge will thrive in high on Power Distance culture, High on Uncertainty Avoidance; and high on bureaucracy.

<table>
<thead>
<tr>
<th>Knowledge Types</th>
<th>Power distance</th>
<th>Uncertainty avoidance</th>
<th>Collectivism</th>
<th>Adhocracy</th>
<th>Bureaucracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tacit or Implicit knowledge</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Explicit knowledge</td>
<td>High</td>
<td>High</td>
<td>-</td>
<td>-</td>
<td>High</td>
</tr>
</tbody>
</table>

In situations, where there is no adequate support from top management towards innovative ideas and breakthrough initiatives, the executives may get discouraged and quit the organizations. They form their own companies and this will create rivals and competitors for the parent organization. Hence, this pose a big challenge to the human resources department to hold their talented/innovative workforce by designing appropriate and attractive incentive mechanisms. Therefore, we hypothesize:

**H3:** Knowledge management is most difficult in exploratory phase of innovation, followed by exploitive innovation, followed by differentiation and followed by cost leaders.

Knowledge management interventions will be highly required in differentiators/innovators and that is slightly higher formalization and higher level of collectivism. In innovators, if some ideas are ignored by top management, then it could lead to organization splitting up along informal lines; and then may lead to breakup & birth of new organizations. Therefore, we hypothesize

**H4:** Tacit knowledge is to be managed by creating redundancy, increasing the level of formalization, Bureaucracy, collectivism and by giving incentives for group effort.

It is also found out from literature that use if information technology (IT) leads to increased formalization. Therefore, we hypothesize

**H5:** It is proposed that use of IT will lead to better management of tacit knowledge.

6. Conclusion

In this paper we have proposed management of Tacit and Explicit knowledge. The useful contribution is made in form the developed hypothesis. A detailed and exhaustive empirical investigation is proposed as a future work which will throw more light and clarity on the above developed concepts.

7. References

Distinguishing between Explicit and Tacit Knowledge

1. Explicit knowledge – can be formally articulated or encoded; can be more easily transferred or shared; is abstract and removed from direct experience. Tacit knowledge – knowledge-in-practice; developed from direct experience and action; highly pragmatic and situation specific; subconsciously understood and applied; difficult to articulate; usually shared through highly interactive conversation and shared experience. Organizational Barriers to the Sharing of Tacit Knowledge

2. Tacit knowledge is difficult to share because it cannot be documented. Early knowledge management practice and research have been mostly focused on managing explicit knowledge in forms of documents, forms, procedures and etc., creating huge repositories of knowledge and relying on IT to facilitate knowledge sharing processes, and enhance the collective memory of an organization. However, the assumption that when technology for knowledge sharing is implemented that employees will share knowledge is showed to be false, and often failed to make tacit knowledge explicit due to the cognitive nature of tacit knowledge (Pawlowski and Robey, 2004).

We assessed explicit and tacit knowledge sharing with items adopted from Wang and Wang (2012) who reported that they... In this article we analyse how tacit and explicit knowledge are managed in teams. Tacit knowledge is located in human persons and it cannot be described formally as data or any other form while explicit knowledge is public and formal. Our approach is qualitative and we aim to describe the appearance and behaviour of knowledge. We also aim to analyse the difference between tacit and explicit knowledge that is realised for example when transferring knowledge between actors in organisations and teams. Discover the world's research. 17+ million members.