

## Role of organizational learning and knowledge management

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### Abstract

This research is based on Electrocell, a US battery manufacturing company, which was facing problems in its marketing and sales departments as evidenced by its low performance. Following a short introduction to the firm, literature reviews the two recently emerged and widely debated topics, that is, organizational learning and knowledge management. It is followed by the reasons for Electrocell's decline and revival before and after acquisition by Restart, a US cosmetic manufacturing company. Then, Knowledge Sharing Model, General Hierarchical Model of Organizational Commitment, Knowledge Management, and Learning Organization Capacity, and Three Dimensional Model are described and critically analyzed. At the end, Knowledge Management System Conceptual Model is applied on the case study thoroughly and critically analyzed followed by summary. The research contributes to the literature and offers important implications for academics, managers and strategists that why learning is important and how does it matter to an organization.

*Keywords: Organizational Learning; Knowledge Management; Organizational Revival; Organizational Survival*

JEL Classification: I0, M1.

### 1. Introduction

Electrocell, US based battery manufacturing company, had 35 percent market share in 1991. It was taking serious efforts to gain more market share. In this connection, company endeavored to bring changes in its marketing system by creating a new position of trade marketing director. With the director's appointment and practice of creating procedure manuals and working with external consulting organization, company increased its market share to 50 percent. Developing procedure manuals led the organization towards learning organization (Swift and Hwang, 2008).

The next section reviews literature on learning organization and knowledge management. Reasons for decline of Electocell before and after the acquisition are discussed followed by discussing and critically analyzing different models.

## 2. Literature Review

Organizational Learning has been the centre of attention for the last two decades. There is an enormous literature on the topic which has led to many issues including diversity of viewpoints on the nature of organizational learning. One point of view is that organizational learning is actually the knowledge enhancement of individuals in an organization. Therefore developing suitable structures and cultures is of significant importance (Argyris, 1990). While the other school of thought perceives organizational learning as a process and, thus, focuses on organizational memory and systems (Nonaka and Nishiguchi, 2001; Senge, 1995). Weick and Westly (1996); Gilly (1997), suggest that an organization can learn by means of: culture as an essential process of linking the organizational learning with individual learning; organization as repositories of learning; and organizations as self designing system. Another view point states that all organizations are learning systems because they respond to the changes that occur continually in both internal and external environment. It further postulates that if organizations do not learn they either tend to die or are dead (David Sutton; Burgoyne et al, 1994). Senge (1990) put forward the notion of a learning organization that aims at achieving group objectives by enhancing their individual and collective capabilities.

According to Argyris (1995) and Lim and Chan (2004), learning can be broadly categorized into single-loop learning, double-loop learning, and deutero-learning. Learning that helps in identifying/detecting problems and then correcting as they arise is referred to Single-loop learning. It's a reactive (Fulmer, 1994) way to learn and requires some behavioural change (Chaharbaghi and Newman, 1996). This is what Senge (1992) calls 'adaptive learning'. The second type of learning, Double-loop learning, challenges the existing ways of doing things and proposing alternative for that. Different authors have given different names to it, for instance, Fulmer (1994) calls it 'maintenance learning' and Senge (1992) names it 'generative learning'. Deutero-learning deals with developing knowledge about how to conduct other two types of learning, single-loop and double-loop. Chaharbaghi and Newman (1996) call it 'developmental learning'.

According to Senge (1990), to be a learning organization it should make sure that it is flexible, adaptive, and productive. However, if it is not so, it can be transpired by learning to stimulate commitment of individuals and to enhance capacity to learn across the organization. The purpose of a learning organization should transcend survival or adaptation to the changing environment rather it is to become procreative learning organization \_ learning that augments capability to create. He further proposes five dimensions of a learning organization. These are System Thinking, Mental Models, Building Shared Vision, Personal Mastery, and Team Learning. System Learning means understanding and addressing interrelationship of parts of the organization as a on separate basis as well. Personal Mastery refers to continually clarify and deepen personal vision, focus on capabilities and energies, develop patience, and to enhance the ability to see reality objectively. Mental Models are the “deeply ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take actions (Senge 1990, p.8)”. Building Shared Vision explains that a shared vision is not the personal vision of a leader or often the one written in the documents but it is the one that people excel and learn not because they are told to, but because they want to. Team Learning is a “process of aligning and developing capacities of a team to create the results its members truly desire (Senge 1990, p. 236)”. It starts with a dialogue among members and then enters into generative thinking together by suspending their long-held assumptions (Infed, 2009).

According to Argyris (1991, p. 84) and Harvard Business Review (1998); in order to become a learning organization, most companies make mistakes: define learning too narrowly as more “problem solving”; assuming that learning follows if employees have right attitudes, commitment and are well motivated. He further argues that “defensive reasoning can block learning even when the individual commitment to it is high, just like a computer programme with hidden bugs can produce results exactly the opposite of what its designer had planned”. This learning dilemma can be resolved by facilitating an environment characterized by organizational learning, initiating programs aim at continuous improvement, and training team members to adapt to different to the changing circumstances.

Knowledge has been differently defined by many academics and practioners. For example, Nonaka and Nishiguchi (2001), perceive knowledge as an active human process of finding ways to match their personal beliefs with the truth as against the traditional western epistemology that define knowledge as ‘justified true belief’. They further suggest that purpose of knowledge

management is not to achieve a mere database of information or existing knowledge rather it aims at creating a system that is capable of crafting knowledge out of knowledge.

Nonaka and Nishiguchi (2001) perceive two types of knowledge as explicit knowledge and tacit knowledge. Knowledge that can be expressed and shared in the form of words, numbers, figures, and any other such data is referred to explicit knowledge. The other type of knowledge, tacit knowledge, is deeply rooted in individuals' actions and experiences, emotions, feelings, and notions etc, so it is difficult to verbalize and imitate. This feature renders this type of knowledge as an important source of competitive advantage (Powell and Swart, 2005).

Converting tacit knowledge into explicit knowledge determines the level of knowledge creation (Nonaka, 1995). Nonaka and Nishiguchi (2001) expand on the concept and argue that inter-transformation of tacit and explicit knowledge leads to knowledge generation. These transformations/conversions occur in four ways, that is, Socialization, Externalization, Combination and Internalization. Socialization refers to transfer of an individual's tacit knowledge into another individual's tacit knowledge by sharing. Observation, imitation and practice are the sources for this kind of learning. Externalization refers to transformation from tacit knowledge to explicit knowledge. It is usually carried out by metaphor, analogies, and collective reflection. In Combination, it is the transfer of explicit knowledge of an individual into another individual's explicit knowledge. This transfer is carried out by different means such as exchange of documents, impartment of lectures, holding meetings, and use of information and communication technologies. Internalization refers to the conversion of explicit knowledge of an individual into the tacit knowledge of other (Lustri et al, 2007).

Language has long been thought as an "Instrument of Knowledge". Different kinds of languages are required for knowledge creation and sharing. For instance, socialization is facilitated by non-verbal language such as body language. Similarly, clear and articulated language is essential in Combination process. Moreover, tropes such as metaphor, metonymy, and synecdoche empower Externalization (Nonaka and Nishiguchi, 2001).

According to Lustri et al (2007), there should be an adequate context for knowledge management to be efficient. He further proposes three contextual elements, that is, environment and relationship, structure, and managerial policies and actions. Environments and relationships refer to a friendly and encouraging environment where there is trust, empathy, accessible help, collaborative relationships, positive attitude to knowledge sharing and adequate

level of informality. Structures should be horizontal with few hierarchical levels and information sharing across firm. Managerial policies and actions refers to dissemination and sharing of information and knowledge, provision of stimulus to risk and leniency to errors, flexible policies, and creation of conditions. All this help to create and disseminate knowledge and develop a system for creating new knowledge.

### *2.1 Reasons for declination of the company*

One reason for Electrocell's declination before acquisition was having a tough competitor and as the key market players were giving hard time to each other by trying to outcompete and outspend each other. As a result their profit margin got low and investment in marketing efforts exceeded its potential return. Similarly the company was receiving comparatively less impact for their marketing efforts due to applying similar marketing efforts and techniques, for example, use of national TV spots and other media spending level.

Restart, a cosmetic company known for its product development success, acquired Electrocell in 1997. After the acquisition Electrocell lost its market share and success due to change of focus from retail marketing driven to new product development. Succinctly the reasons that led to Electrocell's failure were the elimination of cookbook (guidebook) which was the knowledge source and a great contributor in the success of the company and also the sales persons of Electrocell who had to learn new promotions and approaches. In other words they had to learn new culture, adjust in the new organizational structure and to work under new strategies, policies and procedure.

### *2.2 Knowledge sharing model*

This model has been proposed by Widen-Wulff and Suomi in 2003. It consists of hard information resources (time, people, and computer) and soft information resources (intellectual capital, sharing of knowledge and inclination to learn). If wisely used, the former results in effective communication (a core competency for the company) and the later in knowledge sharing culture which leads to business success (Wulff and Suomi, 2007).

On the positive side, the model has considered the important resources like time, Information Communication Technology (ICT), and human resources (HR) which are critical enablers and are vital for operations. But at the same time it has failed to include an important factor, finance, that drives the organization.

Similarly it does not give due importance to managers, employees and trade unions for their active role. The model considers the influence of environmental factors which is appreciable because organizations are open-systems. On the other hand, the model is highly focused internally, that is, external factors have been given undue consideration. One of the most important facilitator (or barrier) to any sort of change is culture and the model has included it. Strategy and structure of the company has not been included in the model which are as important as culture in facilitating knowledge creation and knowledge management.

On the flip side, the model is sequential, that is, it lacks close interrelation (loops) between different steps. Similarly the model is designed in a way that gives a rational, up-beat, and prescriptive tone impression. It also ignores the social relations of productions, that is, exchange, power, and control relations. The model also does not mention the significance of previous customs, traditions, and histories of the organization. Similarly it is devoid of context in which the knowledge sharing is to be carried out.

### *2.3 General hierarchical model of organizational commitment, knowledge management, and learning organization capacity*

This model has been designed for the purpose of examining the association between organizational commitment and knowledge management initiatives in enhancing learning capacity the organization (Massingham and Diment, 2009). This is a cyclic model and consists of five factors: organizational learning, organizational commitment, knowledge management initiatives, and knowledge sharing. Knowledge sharing refers to transferring or sharing knowledge which is one of the core organizational learning processes. This shared knowledge is then applied systematically to maximize the company's knowledge-related effectiveness. This effectiveness (outcome) results in employees 'feelings of security, empowerment, and belongingness which, in turn, lead to organizational commitment. Committed employees plays a vital role in the organizational learning which, in turn, helps in achieving organizational learning capacity \_ ideal state that an organization desire to achieve (Massingham and Diment, 2009).

On the positive side, the model is simple and easy to understand and shows a process view. The model includes the important factors like knowledge sharing, commitment, and learning organization capacity etc.

On the negative side, the model does not mention knowledge creation process, information resources and participants/recipients. Similarly the model

has not taken into consideration the environmental factors \_ economical, social, political, legal, international, ethical, cultural and environmental etc. It also does not cover the preliminary and critical resources \_ time, finance, expertise and technology \_ for making the organization a learning organization. Similarly contextual factors \_ organizational strategies, structure, culture, customers, competitors, suppliers, etc. \_ are not considered in the model. The model also is devoid of social relations of production \_ exchange, power, and control relations.

After considering the potential applicability of the model on the case study and significant deficiencies, the author is not going to use the model.

#### *2.4 Three-dimensional model of organizational learning*

It has been developed by Lam in 2001 with the view to show the process of information/knowledge dissemination throughout the system more explicitly (Lim and Chan, 2004). The model has three dimensions. On the x-axis, Senge (1990) five dimensions (mental model, personal mastery, system thinking, shared vision, team learning) of a leaning organization, and on the y-axis process (knowledge acquisition, information distribution, information interpretation, organizational memory), while on the z-axis objective (survival, efficiency, effectiveness) are given. It can be well explained in terms of three stages. In the first stage, dimensions of mental model (sub conscious, taken for granted beliefs) and personal mastery (learning new and improving the existing knowledge and skills) lead to survival through the process of knowledge acquisition (individual and group knowledge acquired from various sources). Second stage aims at achieving efficiency (productivity) through information distribution process with system thinking (ability to see parts as a whole) dimension. In the third and last stage, shared vision (vocation) of team learning dimensions lead to effectiveness through the process of information interpretation and organizational memory (organizational behaviour, policies, procedures, documents) (Lim and Chan, 2004).

On the positive side the model is very comprehensive, detailed and meaningful. It includes the purpose (survival, efficiency, effectiveness) of the activity. The model is also easy to understand and has been given in a step by step process for becoming a learning organization.

On the flip side, flaws mentioned earlier in other models are here as well, for instance, the model is devoid of critical resources (finance, time, expertise,

and technology). The model also does not consider the importance of active roles played by managers, employees, trade unions etc., and gives a rational, upbeat, and prescriptive impression. Similarly it is highly focused on internal factors and lacks to consider the influence of external factors like competitors, customer, suppliers, economic situation, political and legal concerns, social, cultural and ethical situations etc. The model also is devoid of contextual factors like organizational strategy, structure, and culture which are very significant for bringing any sort of change. Unless the intended change (e.g. transforming an organization into learning organization) is not aligned with these factors, then it is highly unlikely that intended change would occur. The model is also given in a step by step process and with no loops between different steps. Whereas, in reality, it is not necessary things will happen the same way as described in the model.

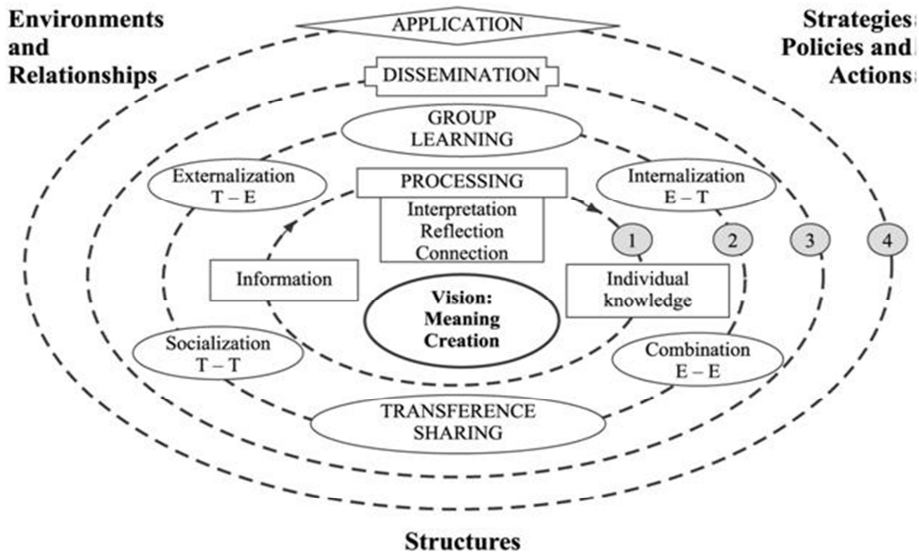
After evaluating the pros and cons of the model in terms of its applicability on the case study, the author is not going to apply the model on the case study.

### *2.5 Knowledge management system conceptual model*

This model has been designed by Lustri et al (2007) for competency development. It consists of four spheres, nucleus, environments and relationships, strategies policies and actions, and structures. Nucleus refers to the shared vision of knowledge development led by actions of people. People should know what type of knowledge needs to be created and for what purpose. First sphere is about knowledge creation by individuals. This entails provision of information through various sources, for instance, books, journals, documents, videos, audios, internet, data-bases etc. and stimulating reflection, analysis, and association of information for developing concepts. Third sphere involves transformation between tacit and explicit knowledge. The transformation of knowledge occurs through interactions, discussions, observations, sharing experiences and information. Third sphere involves dissemination of individual and group knowledge. Fourth sphere entails support provision during exposure to risks and tolerance to errors. It focuses on actions aiming at collective use of organizational knowledge (Lustri et al., 2007).



Figure 1. Knowledge Management System Conceptual Model



Source: Lustri et al (2007)

## 2.6 Application of the model on Electrocell

### 2.6.1 Nucleus

It refers to vision and meaning of creation. In case of Electrocell, the vision or the meaning of creation was to develop and implement distinct promotion programmes for the Electrocell key customers. For this purpose, Frank, the CEO of Electrocell, took some initiatives such establishing a new executive position of Trade Marketing Director in marketing department and bringing together all the vice presidents of marketing and sales department. The job of the new trade marketing director was to enhance the output of key sales representative by working closely with them. The author appreciates the inclusion of vision because it comes from leaders that mean leadership support for the activity. If the leaders are able to make vision a vocation (shared vision), then it is highly likely to succeed (Senge, 1995).

### *2.6.2 First sphere*

It refers to information gathering. Karen Cook, the Trade Marketing Director, hired the services of a consultancy and developed a procedural manual to improve product promotion activity with key retailers. Similarly the sales force was given training about how to develop promotion plans and acquire support materials for the promotion in order to make front-line promotion decisions.

It is a good point to consider individual learning at the early stage and taking learning as process (Sarvary, 1999). But the author criticize the model for the fact that for effective learning there should be an environment (culture) that facilitates learning, stimulation, and rewarding among others. But there is no mention of culture in the model.

### *2.6.3 Second sphere*

It refers to conversion (interaction between tacit and explicit knowledge) of information. The second sphere activities consisted of holding national sales conference, meeting with retailers, receiving feedback from retailers and sales person, scheduling meeting with sales representatives at their quarterly regional meetings, annual regional trip, show and tell presentations by sales representatives, sharing experiences and getting insights on possible application of programme in their respective locations to different retailer needs. All this information was stored in a book, namely, Cookbook and was updated regularly.

According to Nonaka and Takeuchi (1995), knowledge comes out of interaction between tacit and explicit knowledge. The author appreciates the inclusion of different modes of knowledge but raises the question of why people would be willing to share their knowledge (tacit and explicit)? In other words, the model has not considered the social relations of production, that is, exchange, power, and control relations.

### *2.6.4 Third sphere*

It refers to dissemination of information. All the new information, discussions, experiences and insights used to be recorded in the Guide Book, previously called Cookbook. The revised Guide Book used to be sent to everyone in order to get up-to-date information.

The author appreciates the idea of dissemination of knowledge in order to make the most of the existing knowledge. But for effective and efficient dissemination of information, Information Technology (IT) and Information and Communication Technology (ICT) are indispensable. The model does not tell anything about the IT and ICT role in the dissemination of information.

#### *2.6.5 Fourth sphere*

It refers to practical application. In 1995 the company was able to offer 'customized' promotions using Guidebook programme. Guidebook facilitated all the sales representatives and retail buyers in their daily marketing activities. Similarly Guidebook requirements were adopted by Electrocell by modifying its internal processes.

The final and important part of the process is its practical application. The model tells about reaping the benefits of knowledge management but it has not mentioned the investment required for it which has made it possible.

#### *2.6.6 Environment and relationship*

Due to lack of information given in the case study, this factor cannot be applied here. However, this is a very important inclusion in the model because organizations are open systems and external factors influence its activities. Similarly, business is about good relations with suppliers, customers, public etc., so it's really of importance.

#### *2.6.7 Strategies*

The case study provides little information about the whole organization. With respect to marketing and sales departments, the strategy was establishing a new executive position \_ Trade Marketing Director \_ for developing and promoting products. As there was great cooperation and support from top management, that makes it clear that the programme was aligned with policies and strategies.

#### *2.6.8 Structure*

On the basis of given little information, the author assumes the structure

of the company to be a flat one because there was a great deal of cooperation, motivation, and teamwork among the employees.

Inclusion of structure in the model is appreciable because for bringing effective change in an organization, the strategies, structure and culture should be aligned.

Other flaws in the model are that important resources like finance, expertise and time has not been considered. Similarly the model is a sequential and there are no close interrelations (loops) between different steps. It is also highly internally focused, that is, external factors are given secondary importance. The model gives the impression that managing knowledge is an easy and simple step by step process. Whereas, the fact is that it is highly complicated process because there are a number of factors that affect an individual's and group learning like psychological, cultural, social, political, mental models etc.

### **3. Discussion, and Conclusions**

In today's competitive and fast-changing world learning has become indispensable for organization. All organizations are learning systems because they respond to changes that occur in both internal and external environment. If organizations do not learn they either tends to die or are dead (Sutton and Burgoynes et al, 1994). Individuals and groups learn from different sources and resources, in different situations and for different purposes. For instance, finding better ways of doing what the business already know how to do (maintenance learning; single-loop learning). Similarly individuals and groups learn from events of crises (shock learning), anticipating future environments (anticipatory learning; double-loop learning), generating creative ideas (transformational learning; double-loop learning), evaluating and visualizing new models and directions (developmental learning; deutero-learning), preparing stabilizers and making tools for changes (behavioural learning), and learning from experiences (incremental learning) etc. Learning organization dimensions are system thinking, personal mastery, mental model, building shared vision, and team learning, according to Senge (1990). Knowledge is the only source through which an organization becomes a learning organization. It is mainly of two kinds, that is, explicit and implicit. Conversion refers to interactions between explicit and implicit knowledge that results in four different kinds of knowledge, that is, socialization, internalization, externalization, and combination (Nonaka and Nishiguchi, 2001).

A suitable environment plays a vital role in facilitating individual and group learning (Lustri et al, 2007). A suitable environment is one where there is support from leadership, flexible and friendly working environment, teamwork and willingness to share information, experiences and knowledge. All this is greatly affected by social relations of productions, that is, exchange, power and control relations. Learning cannot effectively occur in an organization unless it is aligned with strategies, structure and culture of the organization among others.

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