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Organisational learning: Conceptual links to individual learning, learning organisation and knowledge management

Siu Loon HOE
Singapore Management University, slhoe@smu.edu.sg

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Siu Loon Hoe

UWA Business School, The University of Western Australia
35 Stirling Highway, Crawley WA 6009,
hoesl@graduate.uwa.edu.au

Abstract. Organisational learning has over the years been subject of much study by scholars and managers. In the process, the organisational learning concept has been linked to many other knowledge concepts such as individual learning, learning organisation, and knowledge management. This paper draws from existing literature in organisational behaviour, human resource management, marketing, and information management, to further develop the conceptual links between organisational learning and these knowledge concepts. The paper discusses the characteristics of organisational learning and emphasises its link to individual learning, the learning organisation, and knowledge management. It contributes to the conceptual and theoretical understanding of organisational learning and its relationship to these knowledge concepts from a multidisciplinary perspective.

Keywords: Organisational learning; individual learning; learning organisation; knowledge management.

1. Introduction

Organisational learning plays a key role in the development of competitive advantage in increasingly dynamic and complex environments (Adams and Lamont, 2003; Argyris, 1992; Dawes, 2000; Dickson, 1996; Goh, 2003; Grover and Davenport, 2001; Hunt and Morgan, 1996; Nonaka and Takeuchi, 1995). A superior organisational learning capability as a source of competitive advantage frequently translates into financial performance. Ellinger *et al.* (2002) has found that imperatives such as connecting the organisation to its environment and encouraging collaboration that characterise a learning organisation to be positively associated to an organisation's return on equity, return on assets and Tobin's q. Their findings have provided support for a business case to embrace organisational learning practices.

Beyond agreeing on the importance of organisational learning, scholars and managers are also interested in how knowledge flows into and through organisations, and how knowledge is applied for organisational learning (Akgun *et al.*, 2003; Argote, 1999; Argote and Ingram, 2000; Huber, 1991) and also how the organisational learning concept is related to individual learning, the learning organisation, and knowledge management.

The aim of this paper is to provide a better conceptual and theoretical understanding of organisational learning and its link to related knowledge concepts from a multidisciplinary perspective. The paper is organised into two parts: first, the various perspectives and characteristics of organisational learning are presented to establish a common understanding of the concept. Second, organisational learning's link to individual learning, the learning organisation, and knowledge management are discussed.

2. Two Perspectives to Organisational Learning

To better understand organisational learning, it is important to know the different perspectives on organisational learning. Elkjaer (1996) proposed that there are two main perspectives: interaction perspective and information perspective.

Historically, the interaction perspective on organisational learning was the first to be developed. The interaction perspective is based on the work by Argyris and Schon (1978) on organisational inquiry. The main idea is that members of the organisation, through their interaction, reflect on the way they work. This gives rise to the different learning modes whereby members of the organisation have to pose more and more fundamental questions about the organisation.

According to Argyris and Schon (1978), organisations learn when they detect a mismatch of outcome achieved by the organisation and its expectation, and move to correct the error. This usually involves a change in the

organisation's existing theories about how things should be done. There are several distinct levels of complexity in organisational learning. Beginning from the lowest to the highest, the levels of learning are zero learning, single-loop, double-loop, and triple-loop learning (Argyris and Schon, 1974; Bateson, 1972; Romme and van Witteloostuijn, 1999). The distinction between different systemic levels of learning is the relationship between the organisation's structural and behavioral patterns. For example, zero learning occurs when fresh imperatives or problems arise in an organisation but members fail to take corrective action to address the challenges (Snell and Chak, 1998). This means that the structure or behavior remains status quo and nothing happens to improve the situation.

Single-loop or adaptive learning occurs when actions are adjusted to achieve the desired outcome without altering of present policies (Argyris and Schon, 1978, p. 2). Single-loop learning is a consolidation process whereby the organisation's knowledge base changes without alternation of its the present policies or basic activities (Snell and Chak, 1998). Thus, it results in the organisation only achieving its current set of objectives.

Double-loop or generative learning occurs when the organisation modifies its underlying norms, policies or objectives when errors have been detected and corrected (Argyris and Schon, 1978, p. 3). Double-loop learning is a transformation process whereby the organisation's knowledge changes by the collective reframing of problems, and development of new policies or objectives (Snell and Chak, 1998). It transforms mental maps to give new meanings and actions. Double-loop learning is important because it reflects an organisation's capacity to change its perspective of the world by unlearning outdated practices, and proactively replacing them with systems or procedures that are capable of creating competitive advantage (Dickson, 1996). Compared to single-loop learning, learning at the double-loop level is generally more future-oriented rather than past-oriented (Schon, 1983). While single loop refers to taking corrective actions like making tactical adjustments to operations, double-loop learning involves adopting a totally different way of seeing things which will lead to more fundamental strategic or paradigm shifts in the areas concerned. Therefore, single-loop learning is about coping with changes while double-loop learning is about anticipating changes (Senge, 1990). In contrast to the more common single-loop learning, double-loop learning is often missing in most organisations and is commonly referred to as a higher order of learning (Argyris and Schon, 1978). Therefore, double-loop learning tends to be a more proactive form of learning compared with single-loop learning.

Triple-loop or deutero learning occurs when members in an organisation develop new processes or methodologies to arrive at the reframing of problems. It is inventing new processes for generating mental maps. This form of learning manifests itself when members find out how they and their predecessors have promoted or inhibited learning, and use this information to create new ways to learn. Triple-loop learning is concerned about increasing the fullness and depth of learning about the diversity of issues faced. Various learning groups can then be linked together to form an overall learning infrastructure, as well as developing the competences and skills to use this infrastructure (Flood and Romm, 1996).

One major drawback of the interaction perspective is that there are relatively fewer empirical studies adopting this approach to organisational learning. Most of the research done is conceptual and theoretical (Argyris and Schon, 1978; Romme and van Witteloostuijn, 1999). The information perspective, on the other hand, approaches the subject of organisational learning very differently and has been the basis of various empirical studies (Jaworski and Kohli, 1993; Narver *et al.*, 1998).

The information perspective originated from the research by Cyert and March (1992) who proposed that organisational learning is concerned with the adaptability of the organisation over time. Consequently, establishing effective information-collection processes and decision-making processes in the organisation will eventually provide an optimal fit between the organisation and its environment. A process is defined as a collection of tasks and activities that, together, transform inputs into outputs (Garvin, 1998). Within organisations, these inputs and outputs can be as varied as materials, information and people, and the outputs the goods and services produced.

The information perspective to organisational learning is advocated by many contemporary scholars (DiBella and Nevis, 1998; Dixon, 1992; Huber, 1991). They emphasised that organisational learning is a process which consists of a series of separable activities that may generate learning over time. Szulanski (2000) mentioned that taking a process view provides insights into the working of different organisational arrangements for managerial interventions. For example, the 3-stage organisational learning model developed by DiBella and Nevis (1998) is a popular application of the information perspective. This model highlights how knowledge processes contribute to organisational learning. In addition, many marketing scholars have empirically tested the organisational learning construct based on the information perspective (Jaworski and Kohli, 1993; Narver *et al.*, 1998).

3. Characteristics of Organisational Learning

Arising from the two perspectives of organisational learning, there are some commonly accepted definitions of the concept. In one case, organisational learning is referred to as "the capacity or processes within an organisation to maintain or improve performance based on experience" (DiBella and Nevis, 1998, p. 28). There are three essential criteria for organisational learning to occur (DiBella and Nevis, 1998). First, in an organisational learning setting, new skills, attitudes, values and behaviours are acquired over time. Constant changes in the environment provide opportunities to create new knowledge. When this knowledge is converted into new skills, attitudes, values or behaviors, learning takes place. Second, what is learnt becomes the property of some collective social unit. Organisational learning is a social process whereby the learning of individuals becomes accessible to others. Third, what is learnt remains within the organisation or group, even if individual leaves. In another case, organisational learning is defined as the capability of a company as a whole organisation to create and disseminate knowledge (Nonaka and Takeuchi, 1995). This is the organisational capability to acquire, disseminate and use knowledge from its customers and competitors in order to adapt to a changing external environment.

Based on these definitions, some key characteristics of organisational learning can be observed. First, organisational learning is a capability. Second, it comprises several knowledge processes. Third, the organisation will alter the way it operates as a result of applying the knowledge. This organisational-learning capability arises from the fact that organisations are able to apply knowledge so as to modify their behaviour in response to rapid changes of external factors.

With the perspectives and key characteristics of organisational learning clarified, a discussion on how the concept is linked to individual learning, the learning organisation and knowledge management follows next.

4. Organisational Learning and Individual Learning

Organisational learning is clearly different from individual learning. Individual learning occurs when a single person gains knowledge of a subject or skill and applies it. For organisational learning to occur, knowledge must be disseminated among different individuals and organisational units, and processed at different levels of the organisational structure beyond the individual (Popper and Lipshitz, 2000). Therefore, organisational learning must take place at three levels: individual, group and organisation (Marsick and Watkins, 2003; Nonaka and Takeuchi, 1995; Sabherwal and Becerra-Fernandez, 2003). In organisational learning, there is retention of knowledge on the whole, even when individuals leave the organisation.

It should be noted, however, that an organisation comprises individuals and the organisation can only learn via individuals. This is because an organisation cannot acquire, disseminate or use knowledge without the initiative of the individual and interaction among members of a group. It is individual learning that advances organisational learning (Berends *et al.*, 2003; Kim, 1993).

5. Organisational Learning and Learning Organisation

There is also a need to clarify the commonly used and interchangeable terms, learning organisation and organisational learning. Learning organisations "comprised of individuals who are skilled at creating, acquiring, interpreting, transferring, and retaining knowledge and at purposefully modifying its behavior to reflect new knowledge and insights" (Garvin, 1993, 2000). This definition suggests that there are several discrete steps taken by individuals in a learning organisation.

Calvert *et al.* (1994), Watkins and Marsick (1993), and Rowden (2001) suggested that learning organisations tend to have the following common characteristics: they provide continuous learning opportunities; they use learning to reach their goals; they link individual performance with organisational performance; they promote discussions by creating a safe environment for people to share openly and take risks; they embrace creative tension as a source of energy; and they interact continuously with their environment.

On the difference of the terms organisational learning and learning organisation, DiBella and Nevis (1998) explained that organisational learning is used to describe certain types of activities or processes than may occur at any one of several levels of analysis or as part of an organisational change process. For example, knowledge of customers' needs could take place when an individual sales person meets with the client or when a group of sales persons update their manager during a weekly sales meeting. On the other hand, the learning organisation is a systems-level concept which calls for the interaction of different parts to produce a shared and identifiable outcome for an ideal organisation (Senge, 1990). For example, having understood the customers' needs, sales personnel would have to work with other departments, such as marketing, research and development, and production to collectively meet the customers' requirements for better profits.

However, in practice, the terms organisational learning and learning organisation are generally used interchangeably, although there is a subtle difference between them. As mentioned, the former term refers to the levels of analysis: individual, teams and organisations, while the latter refers to the interaction between and among these levels (DiBella and Nevis, 1998).

6. Organisational Learning and Knowledge Management

A closely related concept to organisational learning is knowledge management. It is argued that organisational learning and knowledge management are essentially identical. This view is based on the comparison of the processes of knowledge management and organisational learning from an information perspective, in particular, how knowledge processes contribute to organisational learning.

Knowledge management is concerned with the systematic, effective management and utilisation of an organisation's knowledge resources (Davenport and Volpel, 2001). It is about creating an environment that is conductive for the flow of knowledge and favourable for people to freely interact and exchange knowledge (Bierly and Daly, 2002; Davenport and Prusak, 1998). These definitions suggest that knowledge management consists of a series of knowledge-processing activities. Many knowledge management models that have been created adopt this process-centric approach and emphasise common knowledge processes such as knowledge acquisition, dissemination and use (American Productivity and Quality Center, 1998; Becerra-Fernandez and Sabherwal, 2001; Grover and Davenport, 2001; Leonard-Barton, 1995; Sarvary, 1999; Schlie, 1999).

The contemporary conceptualisation of knowledge management follows closely that of organisational learning in its approach towards learning processes and treatment of knowledge (Fedor *et al.*, 2003). By comparing the core processes of knowledge management and organisational learning, these two concepts are essentially the same. The concepts are similar in the way they deal with knowledge acquisition, dissemination and use. Recall that organisational learning is a cycle of three processes, including knowledge acquisition, knowledge dissemination and knowledge use (DiBella and Nevis, 1998). Furthermore, at the organisational level, knowledge management and organisational learning are inextricably linked. This is because knowledge that is acted upon would lead to a change in corporate behaviour, implying that learning has been achieved. Similarly, maintaining a certain knowledge position is most effectively accomplished by continuous organisational learning. Therefore, knowledge management and organisational learning should be analysed and discussed together (Loermans, 2002; McElyea, 2002).

Overall, scholars have treated organisational learning and knowledge management as identical constructs. The slight difference is in the application of knowledge management initiatives which stresses information technology as a key enabler. Knowledge management initiatives have traditionally placed much emphasis on information technology (Davenport and Klahr, 1998; McDermott, 1999; Otto *et al.*, 2001; Scheel, 2002; Stewart, 2002). Some of the popular categories of knowledge management technology employed in organisations include document management systems, expert location systems, and enterprise portals (Benbya *et al.*, 2004; Chua, 2004; Marwick, 2001). These categories may themselves consist of a series of technologies. For example, portals are a collection of applications such as storage of meta data, citation or hyperlink, automatic classification of information, search of indexes, and summarisation of document information. Also, there are other enabling technologies used, such as digital audio and video recordings, speech recognition and natural language processing.

Compared to organisational learning, knowledge management is a relatively new and contemporary terminology. Both knowledge processes have been referred to frequently in established and closely related fields such as marketing and management. Marketing scholars such as Farrell (2000) and Sinkula *et al.* (1997) generally referred to this process as organisational learning in marketing journals. On the other hand, management scholars (Davenport *et al.*, 2001; Davenport *et al.*, 1996; Loermans, 2002; Sarvary, 1999; Sveiby and Simons, 2002) use knowledge management in related organisational behaviour, human resource management, and information management journals. In fact, many authors have used these two terms interchangeably (Garvin, 1993; Senge, 1990; Sitkin *et al.*, 1994; Szulanksi, 1996). Consequently, based on the survey of the literature, organisational learning is essentially an integral part of knowledge management and organisational learning is more of a subset of knowledge management.

7. Conclusion

This paper draws on extant organisational behaviour, human resource management, marketing, and information management literature to further develop the conceptual relationship between organisational learning and various related knowledge concepts. A discussion on the characteristics of organisational learning was presented.

Conceptual links to individual learning, learning organisation, and knowledge management were also made. The paper provides a conceptual and theoretical understanding of organisational learning and its link to related knowledge concepts from a multidisciplinary perspective.

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Siu Loon Hoe is an Adjunct Research Fellow at UWA Business School, The University of Western Australia. His research interests are focused on organisational learning and knowledge management processes. Siu Loon holds a BSc from the National University of Singapore, and an MBA (International Business) and PhD (Management) from The University of Western Australia.