HOSPITALS AS LEARNING ORGANIZATIONS: AN EXPLICATION THROUGH A SYSTEMS MODEL

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ABSTRACT

The purpose of this conceptual paper is to offer an application of a systems model for Senge’s five disciplines in hospitals. The paper utilizes a conceptual framework for the analysis of antecedents and outcomes of Senge’s five disciplines, focusing on specific factors unique to the hospitals. The explication of the model will manifest its relevance and applicability for the health-care sector: it will represent how hospitals will operate as learning organizations. It will also posit the anticipated interactions among specific constructs associated with Senge’s five disciplines within the health-care sector. The paper will manifest a causal model that links variables in the learning organization, a perspective that would be instrumental for health-care organizations to achieve competitive advantage. The paper will provide added value both for academics and executives interested in the analysis of the complexity of Senge’s five disciplines for health-care organizations.

Keywords: Hospitals, Systems, Learning Organizations.
1. INTRODUCTION

The present business environment is characterized by change and uncertainty, heavily affected by social, technological, and economic factors. The organizations exist in a Knowledge Economy where intellectual capital is considered more important than the traditional physical assets. To survive and prosper the companies must have the ability to acquire knowledge and information from environmental changes as well as its internal and external experiences. Failure to adapt themselves to the current competitive setting will challenge the survival of organizations. An organization which continuously transforms itself and facilitates the learning of its members is referred to as the “Learning Organization”.

Paramount importance is given to the concept of Learning Organization in the last two decades. Senge (1990), Pedler et al. (1991), Garratt (1991), Watkins and Marsick (1993), and Marquardt (1996) have each provided distinct contributions to the study of Learning Organizations. Senge (1990) and Pedler et al. (1991) reflected Learning Organization as an actual understanding and/or achievement by practitioners within organizations. Marquardt (1996), Watkins and Marsick (1993) were concerned with the specifics of actions and behaviours than with concepts. Learning organizations can quickly adapt to the changes and can secure more competitive advantages (Senge, 1990). Hence, the concept of Learning Organization focuses on learning as a new philosophy for sustainable change and renovation in organizations in the dynamic business environment.

Scholars pursuing research in the area of Learning Organizations consider Senge’s model to be the most suitable framework for organizational development, incorporating it into their work (An and Reigeluth, 2005; Boyle, 2002; Garcia-Morales et al., 2006; Jamali et al., 2006; Kiedrowski, 2006; Reed, 2001; Rifkin and Fulop, 1997; Wheeler, 2002). Senge’s “Fifth Discipline” philosophy is inspirational, yet it poses a difficulty in translating it into a model that would enable systematic evaluation of the process of creating Learning Organizations. Bui and Baruch (2010) constructed a model that translates Senge’s Learning Organization theory to an explicit, testable model. The model comprises a set of antecedents, moderators and outcomes. The authors advocated the application of this model is to various sectors and industries.

This paper critically examines the fit of the Bui and Baruch’s (2010) model of Learning Organizations (LO) to the health care sector.

The first part of this paper will deal with the 5 disciplines proposed by Peter Senge. The second part of this paper will explain the Bui and Baruch’s (2010) model of Learning Organizations (LO). The importance and relevance of the Bui and Baruch’s (2010) model in the health care context is highlighted in the second part. The main focus of the final part is to explicate how the model may be tested in actual life settings within the health care sector.

1.1 Problem Statement

Today the hospitals operate in competitive business environments. The level and diversity of requirements for quality to fulfill the requirements of the stakeholders is increasing. A hospital can survive only if it has an enduring capability differential. This study explores the fit of the Bui and Baruch’s (2010) model of Learning Organizations (LO) to hospitals. The reason for using Learning Organization approach arises from the fact that conventional thinking has not been able to provide long-term, longer lasting solutions to present day problems. Learning Organization approach provides a different perspective to face the modern challenges.
1.2 Objectives of the Study

The following are objectives of the study:

(i) To understand the dimensions of learning organizations.
(ii) To analyze the antecedents, outcomes and moderators for all the five disciplines of Learning Organizations.
(iii) To explicate the testability of Bui and Baruch’s (2010) model in actual life settings in hospitals.

1.3 Research Methodology

In order to achieve the above-mentioned objectives identified, the literature on the subject of Learning Organizations was critically reviewed and analyzed.

2. REVIEW OF LITERATURE

Senge (1990) promoted and popularized the concept of the learning organization but people like de Geus (1988) made earlier contributions. Other important contributions on the concept of the learning organization were done by Argyris (1991); Garvin (1993); Argyris (1994); Senge (1994); Jack Welch in Kramer (2002).

2.1 Definitions

According to Senge (1990:3) a learning organization is an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.

A learning organization is a goal, value system, or a collection of disciplines or practices (Mumford, 1996:129).

A learning organization is an organization that responds to and anticipates change in its environment by learning on a strategic level (Buyens, Wouters & Dewettinck, 2003).

2.2 Senge’s Five Disciplines

Senge's Fifth Discipline approach (1990) raises various interesting points when considering what a learning organization strives to be.

What distinguishes learning organizations from traditional organizations is the mastery of five "learning disciplines" or "component technologies", namely, personal mastery, mental models, shared vision, team learning and systems approach. These five learning disciplines are necessary to create a learning organization and organizations become successful only by becoming learning organizations.

Senge (1990: 6-10; and 1999:32) explains what each of the five "learning disciplines" entails:

A. Personal mastery: Personal mastery is a discipline of aspiration. It involves clarifying and deepening personal vision, of focusing energies, of developing patience, and of seeing reality objectively. Learning to cultivate the tension between personal vision and reality can expand people's capacity to make better choices, and to achieve more of the results that they have chosen.
B. Mental models: Mental models are deeply ingrained assumptions, generalizations, or pictures or images that influence how people understand the world and how they act. Mental models influence the way people behave. The discipline of mental models is a discipline of reflection and inquiry. It is focused around developing awareness of the attitudes and perceptions that influence thought and interaction. Through the "ladder of inference", a discipline of mental models researchers/inquirers are made aware that people in general behave and that they have a tendency of jumping to counterproductive conclusions and assumptions.

C. Shared vision: The discipline of shared vision involves a collective focusing on mutual purpose. People become committed to a group or organization if they are guided by shared images of the future they seek to create and have principles and guiding practices by which they hope to get there. The practice of shared vision involves the skills of uncovering a shared picture of the future that fosters genuine commitment and enrolment rather than compliance. In mastering the discipline of mental models leaders learn the counter-productiveness of trying to dictate vision, no matter how heartfelt that vision may be.

D. Team learning: Team learning is a discipline of group interaction. It starts with what Senge calls a dialogue where team members suspend assumptions and enter into a genuine thinking together. Through team learning teams transform their collective thinking and learn to mobilize their energies and actions to achieve common goals. Teams learn to understand that the whole is more than the sum of individual members' talents. In modern organizations teams and not individuals are the fundamental learning units. Unless teams can learn the organization cannot learn.

E. Systems thinking: The last and the most important learning discipline as identified by Senge is systems thinking. Systems thinking is the discipline that integrates all the disciplines into a coherent body of theory and practice. This discipline enables people to better understand interdependency and change. Systems thinking framework enables people to understand the complexity of organizations/systems, the multiple feedback processes in organizations/systems, and the innate tendencies of organizations/systems to grow or stabilize over time.

2.3 Antecedents, Outcomes and Moderators of the Five Disciplines of Learning Organizations - Bui and Baruch (2010) – (Figure 1)

Bui and Baruch (2010) employed a systems model approach to explore Senge’s model. For each discipline they offered a set of possible antecedents and anticipated outcomes, and certain factors that may serve as moderators. They presented the various constructs independently, pointing out the connection between them to represent the umbrella concept of individual disciplines. The interaction of these aspects included the relationship between those suggested as antecedents and outcomes, as well as the way they interact with each other.
2.3.1 Personal Mastery

Personal mastery refers to the personal commitment of continuously clarifying and deepening a personal vision, of focusing energies, of developing patience, and the ability to see reality as objectively as possible (Appelbaum and Goransson, 1997). “It goes beyond competence and skills, though it is grounded in competence and skills. It goes beyond spiritual unfolding or opening, although it requires spiritual growth. It means approaching one’s life as a creative work, living a life from a creative as opposed to reactive viewpoint” (Senge, 1990, p. 141).

After studying the literature related to personal mastery, Bui and Baruch (2010) identified five antecedents, three outcomes, and one possible moderator to explicate the model applicable for this discipline.

The antecedents to personal mastery are personal values, motivation, individual learning, personal vision, and lastly development and training.

The positive outcomes of personal mastery can easily be recognized in management. Self-confidence and self-efficacy are crucial factors in progressing individuals’ performance and subsequent career (Baruch et al., 2005). Employees with high level of personal mastery often have better performance (Bloisi et al., 2007). Further, personal mastery can create a balanced work and home life (Baruch, 2004; Doherty and Manfredi, 2006; Johnson, 2006).

The relationships suggested above, of impact from a set of antecedents to outcomes are not anticipated to be simplistic. Certain factors may moderate such associations. Bui and Baruch (2010) proposed that the following factors serve as moderators.

a) Organizations’ policies, in particular HRM policies, play an important role in promoting personal and professional development.
b) The sector of operation may serve as a moderator.

c) The higher the relevance of human capital the higher the impact of personal mastery is anticipated (compared for example, with the relevant importance of finance or other types of capital).

2.3.2 Mental Models

Mental models are cognitive representations of external systems that specify the cause-effect relationships governing the system (Gentner and Stevens, 1983b). Mental models refer to “the ideas and beliefs we use to guide our actions. We use them to explain cause and effect and to give meaning to our experience” (O’Connor and McDermott, 1997, p. 114). They refer to deeply held assumptions or metaphors through which we interpret and understand the world, and take actions (Appelbaum and Goransson, 1997; Senge, 1990). Mental models have the power to influence human behaviours and mindsets. Thus, mental models are important in the process of organizational learning. They form the underlying basis of tasks which involve non-current skills and problem solving (Barker et al., 1998). Mental models are influenced by a set of antecedents, such as organizational commitment, leadership, and organizational culture. Mental models are believed to lead to outcomes such as knowledge sharing and better performance (Gentner and Stevens, 1983a), with two moderators, including communication systems and learning environment.

2.3.3 Shared Vision

Shared vision is a vision that people throughout an organization are truly committed to (Senge, 2006, p. 192). Building shared vision is important for bringing people together and to foster a commitment to a shared future (Appelbaum and Goransson, 1997) because shared vision provides members of an organization with a direction by which they can navigate (Griego et al., 2000), and a focus for learning for its employees (Senge, 1990). The set of anticipated antecedents, outcomes and moderators suggested by Bui and Barach (2010) are as follows:

- Antecedents: personal vision, personal values, leadership, and organizational culture.
- Outcomes: Shared vision brings benefits for both individuals and organizations. In terms of individuals, when people develop personal visions they are aware of what they are heading towards for their personal and professional success. Second, it creates a good public image of a healthy and wealthy education. Put together, at the aggregate level, shared vision would be a key to organizational sustainability and growth (Schwarz et al., 2006, p. 358).
- Moderators: Two moderators suggested for shared vision are organizational size and communication systems.

2.3.4 Team learning

Team learning is “the process of aligning and developing the capacity of a team to create the results its members truly desire” (Senge, 1990, p. 236). This emphasizes the significance of team learning as the fundamental learning units. Synergistic teams are the “flywheel of the Learning Organizations”, and thus are essential for the Learning Organizations (Hitt, 1995, p. 20). If an organization consists of talented individuals that cannot collaborate within a team, their contribution towards reaching the organizational goals will be severely limited. Nevertheless, “despite its importance, team learning remains poorly understood” (Nissala, 2005, p. 211).
Team learning is influenced by five main antecedents. They are team commitment, leadership, goal setting, development and training, organizational culture.

The Bui and Baruch’s (2010) model posits that both “improved team performance” and “knowledge sharing” are the anticipated outcomes of team learning.

Communication systems and learning environment are proposed as two moderators that affect the relationship between team learning and knowledge sharing.

2.3.5 Systems Thinking

Systems thinking can be understood as “people’s capacity to examine a problem in the full setting of the interconnecting elements” (Hosley et al., 1994, p. 12). It is a discipline for seeing the “structures” that underlie complex situations, and for discerning high from low leverage change. Ultimately, it simplifies life by helping us to see the deeper patterns lying beneath the events and the details (Senge, 1990). It also enables understanding of system behaviour, which is not a function of parts but of how different parts interact (Kofman and Senge, 1993). Appelbaum and Goransson (1997, p. 121) state that: “any attempt at creating a Learning Organization must start from the premises of the organization as a system”. Senge (1990) sees systems thinking as the foundation on which a Learning Organization must be founded. Senge (1990) argues that overall, the four disciplines – personal mastery, mental models, team learning, and shared vision – are antecedents of the fifth one, systems thinking.

Apart from that, follows are a set of antecedents, outcomes and moderator of this discipline.

- Antecedents: Individual Competence and leadership, organizational culture.
- Outcomes: Systems thinking produces major impacts on organizational learning and change (Fullan, 2004; Senge, 2000).
- Moderators: Personal and professional development is suggested to moderate the relationships of these antecedents with systems thinking.

3. FITTING BUI AND BARACH’S (2010) LEARNING ORGANIZATION MODEL TO HOSPITALS

In this section we explain the antecedents, moderators, and outcomes of the five disciplines that are depicted in Bui and Baruch’s model for the specific context of health care settings.

The researchers investigate what they consider to be the main possible antecedents, moderators, and outcomes of the five disciplines, and for each articulate their relevance for the health care sector.

A. Antecedents

Personal values were suggested as the first antecedent for personal mastery and shared vision in Bui and Baruch’s (2010) newly-developed LO model. The impact of values is thought to be of special relevance in health care systems. The providers of health care services are regarded as moral guides and exemplars, whose standards are expected to be “a little above the level of the rest of society”. Health care professionals like doctors, nurses etc. are generally highly individualistic in their work. They may become those whose primary role is to generate and transfer knowledge within the organization.
Second, motivation was offered as an antecedent for personal mastery and shared vision. Personal and professional development undertaken in health-care is because of high extrinsic and intrinsic motives of medical and paramedical staff.

The third suggested antecedent for personal mastery is individual learning. Medical Professionals are highly qualified in terms of formal education, however, much of their post-degree learning is informal, and may occur via conferences, workshops, self learning, learning at work and learning through peers. Continuous Professional Development (CPD) programs are initiated and frequently organized by health-care institutions to enable individual learning.

Fourth, personal vision is another antecedent for personal mastery and shared vision. There is an increased confidence in staff’s personal vision when hospitals develop as learning organizations. If people have the right personal values, are motivated to work in hospitals and are committed to lifelong learning, they are likely to acquire personal vision. This construct needs a measure to be developed as well.

Next, development and training is an antecedent for personal mastery and team learning. Hospitals support staff through various development and training programs, as training leads to a significant impact on performance at the individual and the organizational levels. Development and training initiatives are given a top priority. Considerable attention is also given for training team-skills.

Organizational commitment is considered as an antecedent for mental models. Hospitals as Learning Organizations encourage people to challenge their mental models, as they can be the precursors to innovation and creation. Nevertheless, despite reported increases in workloads across time, health-care staff remains committed to their chosen career and to the success of their hospitals.

Connected to organizational commitment is team commitment, and thus also suggested as an antecedent for team learning. Teamwork makes health-care professionals more committed. Once people are committed to team learning, they will set clear goals for the team and themselves.

Leadership can be considered an antecedent for mental models, team learning, shared vision and systems thinking. If hospitals desire to create meaningful change, then they must “challenge traditional mental models”. Thus, leaders should pioneer developing learning cum customer-focused model of health-care.

Like leadership, organizational culture is an antecedent for mental models, team learning, shared vision and systems thinking. The culture of hospitals is distinctively different to other sectors. Studies on the association between organizational culture and Learning Organizations are scarce in the health-care sector, thus more studies are recommended.

Finally, competence is an antecedent for systems thinking. Professional Competence will enable superior performance of the whole system.

B. Outcomes

The researchers consider individual performance and success to be the first outcome of personal mastery and shared vision. Measuring performance and defining success in a hospital context is often more complex and multi-dimensional than in a conventional business context.

Self-efficacy is suggested as another outcome of personal mastery. People with a high educational background tend to build up individual self-confidence and self-efficacy (Baruch et al., 2005; Baruch and Peiperl, 2000). This seems obvious as hospitals recruit the most highly qualified staff, especially doctors.
Work-life balance is another proposed outcome of personal mastery. Personal mastery can create a balanced work and home life (Baruch, 2004; Doherty and Manfredi, 2006; Johnson, 2006). Many people working in a health-care setting finds it difficult to maintain a balance between family life and personal development.

Knowledge sharing is suggested as an outcome of mental models and team learning. Few research findings show the direct link between mental models, team learning and knowledge sharing, particularly in hospitals.

Moving from the individual level to aggregate levels of team and organization, the researchers propose that a better team performance is an outcome of mental models and team learning.

Organizational success is an outcome of shared vision and systems thinking. As mentioned before, it is complex to measure a hospital’s organizational performance and success. In addition, there is a controversial debate on whether hospitals are for-profit organizations or non-profit ones. Other organizational performance indicators are efficiency-productivity, growth and/or market share, and quality.

Strategic planning for health-care organizations has attracted attention from scholars as well as from practitioners. The researchers view a positive relationship between systems thinking and strategic planning which needs to be analyzed.

C. Moderators

HR policies are suggested the first moderator for personal mastery and systems thinking. Hospital’s policies play an important role in promoting personal development. However, many hospitals still do not invest sufficiently in staff development activities.

The researchers believe that size of the hospital is an important moderator for shared vision. The ability to gain shared vision is subjected to size – the larger the organization, the more complex and difficult it is to reach and maintain a shared vision (Hage, 1980) while small organizations have more flexibility and ability to adjust and adapt a shared vision (Nord and Tucker, 1987).

The type of sector to which a hospital belongs is another moderator for personal mastery and shared vision. Private hospitals would probably have better outcomes in terms of profitability, whereas the public sector hospitals might have over administration and bureaucracy in place. On the other hand, the distinction between private and public hospitals is diminishing as public hospitals model themselves on private hospitals, competing for professional excellence.

Communication systems are a moderator for mental models, team learning and shared vision. Knowledge sharing requires appropriate communication systems (Cabrera et al., 2006; Kang et al., 2008). With the aid of technology, hospitals can create effective and efficient communication systems, producing a new mental model of e-communication, via which they can share their mental models, i.e. share their ideas, experience, and their vision.

Supportive learning environment is another possible moderator for mental models and team learning. A supportive learning environment encourages professional learning in hospitals.

4. DISCUSSIONS AND CONCLUSION

This conceptual paper follows the general systemic presentation of Senge’s five disciplines followed by Bui and Baruch’s (2010) model of Learning Organization. A methodological approach
was used by the researchers to fit the model of Learning Organization to the hospital settings and findings were interpreted. The researchers focused on the specific set of antecedents and outcomes of Senge’s five disciplines, as prevailing in the health-care sector, manifesting the relevance of the model to this sector.

The researchers believe that learning from this model would be instrumental for the hospitals in achieving competitive advantage over other players. There is an increasing demand for health-care services, leading to a steady and continuous growth of health-care institutions.

Managerial implications for leaders of health-care institutions relate to the realization of the requirements of effectively developing their hospitals as Learning Organizations. With the provided framework, managers can even test the degree to which their organizations can be Learning Organizations; or what else should be done to become Learning Organizations. Theoretically, this model can serve as an anchor for scholars interested in conducting an applied research in the area of Learning Organizations.

Future studies with appropriate methodologies and wise translation of relevant constructs into measurable variables using Senge’s systems thinking perspective are recommended.

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