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The intellectual capital and the learning organization

Case study of Saint Joseph Hospital, Paris

A case study of Saint Joseph Hospital, Paris

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Abstract

Purpose – The purpose of this paper is to identify the simultaneous effect of the intellectual capital (IC) dimensions (human capital (HC), structural capital (SC), and relational capital (RC)) in enhancing the learning organization (LO) capability, specifically in the health sector.

Design/methodology/approach – A survey data were collected from administrative staff working in a well-known hospital in Paris. In all, 182 observations were used to test the hypotheses. The data were analyzed using multiple regression analysis.

Findings – The results illustrate that only one dimension of IC, namely HC has a positive and significant effect on the LO capability while the other two dimensions namely SC and RC were found to have no significant effect. **Research limitations/implications** – The current study highlights the significance of the HC in building and enhancing the LO.

Practical implications – Hospitals' decision makers should play a more decisive role in the process of attracting, maintaining, and training HR. It also confirms the importance of sustaining a sound work environment that motivates HR for continuous learning.

Originality/value – Few studies have examined the impact of IC on the LO capability in hospitals.

Keywords Intellectual capital, France, Learning organization, Hospital

Paper type Case study

1. Introduction

In every organization, there are potential abilities that if they are utilized appropriately, they can lead to organizational development and achieve organizational perspectives, they are the human and knowledge abilities (Norozi *et al.*, 2013). In an environment characterized by complexity, risk, uncertainty and intense competitiveness, organizations need to employ all their capabilities, whether tangible or intangible resources, to invest in the human capital (HC) to make their employees capable to have continuous learning and knowledge to improve performance and create value (María Díez *et al.*, 2010).

This dynamism in environment demands the contemporary organizations to adopt modern management concepts and explore new organizational structures capable of generating external and internal information to support the learning process in the organization (Cassol *et al.*, 2016). Therefore, organizations need to continuously change by increasing their ability to learn to be able to survive and maintain continuity (Dierkes, 2003). However, enhancement of the concept of learning organizations (LO) is one of the challenges facing contemporary organizations; it requires a comprehensive involvement of all assets of the organization especially the intellectual capital (IC) (Alkhchroum and Durrah, 2011).

IC has become an indispensable asset to every organization. It looks at how to improve the collective knowledge embodied in organization's systems, processes and culture, how to find value in employees' talent, and how to increase customers' loyalty (Stewart, 2001).

Health organizations are not an exemption. Hospitals are considered as complex systems (Kannampallil *et al.*, 2011) having a mixture of technological, industrial and scientific



International Journal of Public Leadership © Emerald Publishing Limited 2056-4929 DOI 10.1108/IJPL-08-2017-0031 procedures conducted on people, with a different set of educational cultural and social components. Hospitals face many challenges, such as the use of new technologies, continuity of learning, follow-up medical developments, patient safety, new organizational forms in managing hospitals, and invest in capital and human resources.

Saint Joseph Hospital is one of the well-known hospitals in Paris. It was founded at the end of nineteenth century in 1878, it has a long history of providing top quality healthcare. In January 2015, it comprised 25 specialized departments with 2,162 staff members (420 administrative staff, 386 senior physicians, 486 nurses, 115 internal medicine residents, 150 medical externs in continuing education, and 44 midwives) (Groupe Hospitalier, 2017).

This paper aims to examine the extent of the availability of LO requirements in Saint Joseph Hospital and to check whether the IC dimensions (HC, structural capital (SC) and relational capital (RC)) play a significant role in improving the hospital learning ability. Thus, the following research question has been stated:

RQ1. What are the roles of IC dimensions in building the learning ability of the hospital?

2. Literature review

2.1 IC

In recent years, IC received more attention from many policymakers, investors, and managers. The largest companies identified IC as an important part in determining the market value (Bejinaru and Iordache, 2011) and considered it as the main asset to business (Ariff *et al.*, 2016). IC is considered as an offspring of the knowledge era (Edvinsson, 2013) and can lead the business to be more successful in the future (Brennan, 2001). However, not all successful firms necessarily own all types of intangibilities but have a relative emphasis on one type of intangibility namely the IC that have received a high level of attention in both management practice and scientific research (Hussi and Ahonen, 2002).

However, there is no unified definition of IC; many researchers have defined it in different ways. It was defined as the new wealth of organizations (Martins and Lopes, 2016), the wealth of knowledge-based companies (Petty and Guthrie, 2000), the knowledge that can be converted into profits (Sullivan, 2000), and as a packaged useful knowledge (Stewart, 2001).

Researchers have also suggested different components of IC. In 1998, Bontis developed three dimensions of IC namely HC, SC and RC. Sveiby (2001) suggested that IC is invisible assets of an organization which includes employee competence, internal, and external structure. Todericiu and Stanit (2016) suggested that the IC is used to refer to intangible resources available to an organization, including the organizational capacity, human resources and the organization's relations with its internal and external environment. However, several studies of IC have followed Bontis' components in their research such as Boujelbene and Affes (2013), Keenan and Aggestam (2001), and Madhani (2016). The current study has also followed Bontis' (1998) categorization of IC to have three components: HC, SC, and RC.

2.1.1 HC. HC is defined as the collective knowledge, abilities, and skills of staff within the company that are acquired in the job through training and experience (Varol, 2011). HC includes all knowledge held by the employees within an organization, experiences, teamwork, learning, creativity, education, innovation capacity, and individual expertise (Rezende et al., 2016). It depends on the continuous improvement of staff (Durrah, 2015).

HC also refers to the knowledge, abilities attitudes like experiences, loyalty, and creativity (Habersam and Piber, 2003). It represents the value of the creativity, capacity, talent, competence, and knowledge which is embodied in employees who represent the company (Davenport *et al.*, 2003; Santos-Rodrigues *et al.*, 2011). Abeysekera and Guthrie (2004) found HC as an important source of a sustainable competitive advantage of an organization.

2.1.2 SC. SC consists of the supportive processes, databases, and infrastructure of the organization that support the function of HC (Youndt et al., 2004). Organization's SC depends on the complexity of the structure and the degree of bureaucracy (Santos-Rodrigues et al., 2011). SC is the conceptualized and logical part of the firm, including systematic, codified, and organized competence of the firm that aims to facilitate the efficient flow of internal skills (Rezende et al., 2016). Todericiu and Stanit (2016) found that the SC consists of organizational culture, learning places, infrastructure, processes, projects, and using informational technologies. SC according to Huang and Hsueh (2007) is the organizational capabilities, which involves items such as system, culture, processes, and intellectual property. Further, Bontis et al. (2000) noted that the SC includes strategies, organizational charts, routines, databases, and process manuals.

2.1.3 RC. RC is defined as all relationships that the company has established with the outside world (Cabrita and Bontis, 2008). Hussi and Ahonen (2002) pointed out that the RC represents the strength of customer relations and its loyalty, and found several indicators of RC such as the satisfaction of customer, price sensitivity, financial well-being, and repeat business. Wensley and colleagues (2011) also considered RC as the value that is derived from an organization's relationship with its customers and that contribute to existing and forthcoming revenues. RC is the information which is based on channels of market which are developed by an organization through customer relations and business relations (Bontis et al., 2000). Guthrie (2001) noted that the RC includes elements such as customers, brands, relations with customers, and customer satisfaction.

2.2 LO

The term LO was often used interchangeably with organizational learning (Kareem, 2016). The idea of LO surfaced in the early 1990s when Senge (1990) started exploring the art and practice of the LO and organizational learning with his book "The Fifth Discipline." He described the LO as an organization where employees continually expand their capacity to create new patterns of thinking. Senge (1990) determined five disciplines that are necessary to contemporary organizations; they are: building shared visions, team learning, systems thinking, mental model, and personal mastery. LO is an approach that urges employees to learn, therefore it can be considered an effective and appropriate way to improve quality in organizations (Thomas *et al.*, 2016).

Jeong and colleagues (2007) defined the LO as an ideal organizational vision which could help organizations to deal with environmental change by enhancing activities of learning. It is defined by Aydin and Ceylan (2009) as the organization ability to develop its capabilities to gain information and transform it into knowledge. According to Singh (2016), dimensions of LO include support and recognition for learning, information sharing and management practices, emphasis and rewards for learning, knowledge management, information, facts, time, resource availability, risk-taking, promotion and reinforcement, learning transfer climate, and high-performance team environment. So, as individual learning is important for any organization, the whole organization should learn through processes that empower its employees to share their experiences, knowledge, and skills, thus moving the traditional organization into LO as a whole helps the organization continuously transforms itself (Khan *et al.*, 2013).

2.3 IC and LO

IC and LO are contemporary issues that have received an increasing importance and turned to be vital issues in management.

Organizational learning capability found to have a positive and meaningful effect on the organizational performance (Mollaie et al., 2016; Kalmuk and Acar, 2015), has significantly

influenced organizational innovation (Sutanto, 2017), moderate the relationship between enterprise resource planning implementation and IC (Nguyen *et al.*, 2017). In addition, it was found that increased levels of LO can lead to decreased IC risk in organizations (Alnidawi and Omran, 2016).

Today many companies are starting to realize the importance of IC as a vital part of the learning process (Barrett, 2012). Further, Bejinaru and Iordache (2011) found that IC has a strong integration within the LO, where IC productivity depends on the strength and vitality of all its components. IC found to be related to companies' competitiveness and act as a predictor of the company performance (Kianto *et al.*, 2013).

Previous studies indicated significant relationships between the dimensions of IC and the LO (Farsani *et al.*, 2012; Norozi *et al.*, 2013). However, there was a relative strength in this relationship among the three dimensions. Norozi and colleagues (2013) found that the SC has the most impact on LO whereas others found that HC has the most significant relationship with organizational learning capabilities (Farsani *et al.*, 2012; Moghadam *et al.*, 2013).

Moreover, some studies reveal that some dimensions of IC have no effect on the LO capability. A study in Iran reveals that two (HC and SC) out of the three (HC, SC, and RC) dimensions of IC shows a significant effect on organizational learning capability (Moghadam et al., 2013). So, there is more need to investigate this effect in different organizations and cultures.

- 2.3.1 HC and the LO. Employees are being trained and motivated to be knowledgeable and increase their overall quality. Because the more the quality of employee, the more knowledge will be generated to improve organizational learning capability (Allameh et al., 2010). Thus, the following hypothesis has been formulated:
 - H1. HC has a significant effect on LO.
- 2.3.2 SC and the LO. Employees may be willing to share more knowledge with others in an organization that supports systems and processes (Hsu and Fang, 2009). Thus, the following hypothesis has been formulated:
 - H2. SC has a significant effect on LO.
- 2.3.3 RC and the LO. Employees with more social relations are more willing to acquire more knowledge (Inkpen and Tsang, 2005). So, this study proposes that this association may improve the organizations' learning capabilities. Thus, the following hypothesis has been formulated:
 - H3. RC has a significant effect on LO.

3. Methodology

This study aims to identify the impact of the dimensions of IC (i.e. HC, SC and RCs) on the LO (Figure 1). To test the hypotheses, a field research was conducted using the survey methodology.

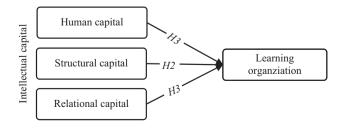


Figure 1. The proposed research model

Using the simple random sampling technique, a sample of 182 administrative staff has participated in this study. The respondents were working in the hospital of Saint Joseph in Paris. The research questionnaire was distributed to them.

The sample of study included 40 percent females and 60 percent males, 40 percent of the respondents have a bachelor degree, most of the respondents were above 40 years old, and most of the respondents have an experience more than ten years.

IC was measured using scale by Santos-Rodrigues and colleagues (2013). LO was measured using scale by Marsick and Watkins (2003).

Participants were requested to indicate to what extent they agree or disagree with the listed items at their workplace, on a five-point Likert-type scale ranging from "5 = Strongly Agree" to "1 = Strongly Disagree."

4. Analysis and results

This study investigated the levels of the IC and the LO in Saint Joseph hospital. In addition, it examined the impact of IC dimension on the organizational learning capabilities.

The descriptive statistics in Table I show that the employees' perceptions of all dimensions of IC at the hospital of Saint Joseph were high. HC was the highest with a mean (4.783), then SC (4.753), then RC (4.747). Table I also shows employees' perceptions of LO was high (4.400).

Table I also shows the analysis of reliability and matrix of correlation for the variables of the current study. The coefficient of Cronbach's α has been used to estimate the scales reliability, where the results show acceptable values of consistency ranging between (0.645 and 0.725).

The correlation matrix reveals correlation coefficients between variables do not exceed 80 percent, and two dimensions of IC: HC (r = 0.372, P < 0.01) and SC (r = 0.251, p < 0.01) are positively and significantly related with LO, while (RC) does not relate with (LO).

Table II reveals results of multiple regression analysis of the three dimensions of IC, i.e. (HC, SC, and RC) with the LO. The results show that one dimension only of IC namely HC (β = 0.447) has a positive and significant impact on LO, while the other two dimensions i.e. SC (β = 0.014) and RC (β = 0.143) have no significant impact on the LO. The explanatory power of the model has reached to 15.1 percent (Figure 2).

5. Discussion

The findings of the present study indicated that the perception levels of IC of the administrative staff in Saint Joseph hospital were high. These results are consistent with

	Variables	Abb.	Mean	SD	I	II	III	IV	
II III IV	Human capital Structural capital Relational capital Learning org. N=182. **Significar	HC SC RC LO nt at 0.01 1	4.783 4.753 4.747 4.400 evel	0.3105 0.3431 0.3322 0.2362	(0.701) 0.742** 0.589** 0.372**	(0.645) 656** 0.251**	(0.696) 0.129	(0.725)	Table I. Descriptive statistics, items number, Cronbach's α and correlations coefficients

Model	В	SE	β	t	Sig	R^2	F	Sig.	Table II.
Human capital Structural capital Relational capital Note: *p < 0.01	0.340 0.009 0.102	0.094 0.114 0.108	0.447 0.014 0.143	4.245 0.121 1.533	0.000* 0.904 0.127	0.151	10.566	0.000*	Multiple regression analysis of intellectual capital dimensions with learning organization

Case study of Saint Joseph Hospital, Paris results of several studies that showed high awareness and relevance of IC in hospitals (Habersam and Piber, 2003; Santos-Rodrigues *et al.*, 2013). This indicates that the management of Saint Joseph Hospital has already supported its IC by motivating them to develop their skills and abilities. In addition, this indicates that the management is adapting flexible organizational structures that facilitate the communication process among various levels and support individuals and collective actions. Moreover, this shows that the hospital has a sound interest with its stakeholders and it develops relationships with them through providing the best services and make constant efforts to acquire new customers.

The administrative staff's perception levels of LO were also high. This result is consistent with results of studies (Elshafie, 2016; Harris and Samreen, 2015; Santos-Rodrigues *et al.*, 2013), while varies with the study of Kareem (2016). This indicates that the hospital is providing continuous learning opportunities for its members and it raises their efficiency commensurate with the contemporary medical and technological development. In addition, the results show that the hospital encourages the active participation, exchange of information, discussion of ideas and opinions, and unification of the future vision of work between the various levels in the hospital.

This research drew attention to three sub-dimensions of IC and their effect on the LO capability. The results of the present study confirm that the HC affects the LO capability and thus it plays an important role in building the LO. Based on this, *H1* will be accepted. These findings are consistent with previous studies (Barrett, 2012; Hsu and Fang, 2009; Lynn, 1999; Moghadam *et al.*, 2013; Nezam *et al.*, 2013). Therefore, findings of this study confirm that organizations, especially in health sector, should have a strong HC to have enhanced LO capabilities.

However, the results of this study show that SC has no significant influence on the LO. This result is inconsistent with a previous study (Moghadam *et al.*, 2013) that declared that SC has a significant influence on the LO. Also, the results of this study show that RC has no significant influence on the LO. This result is consistent with a previous study (Moghadam *et al.*, 2013) that declared that RC has no significant influence on the LO.

6. Implications, limitations and future directions

This study provides an important contribution to the existing literature for academic researchers; it also provides valuable insights for hospital administrators and managers. This study confirms that only one dimension of IC has an influence on the LO capacity. However, this study did not find a direct influence of RC and SC on the learning capacity of the organization. This suggests that organizations should invest more in the HC to reach higher levels of learning and to improve their effectiveness. Therefore, hospital managers may improve the learning ability of their administrative staff by giving more attention to the human component of the IC through: attract human resources with high efficiencies and train them; maintain the qualified individuals, establishing a job environment that provides and supports continuous learning and sharing of knowledge; give the administrative staff

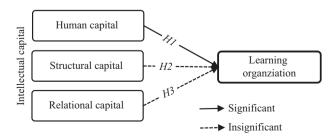


Figure 2.
The research model

the chances to participate in designing the overall goals and participate in solving organizational problems; and encourage human resource to seek opportunities to get training to upgrade their skills and acquire new skills and abilities in their work.

On the other hand, this study suffers from some limitations. First, the current study is limited to one hospital and applied only to the administrative staff, therefore, future researchers may comprise more hospitals and consider other staff in the health sector like physicians, nurses, or internal medicine residents. Second, this study only explores the role of IC in building a LO, thus, future studies may explore the role of other variables like leadership, innovation, organizational effectiveness, and organizational commitment.

To sum up, the main purpose of the current study was to verify the significant effect of IC dimensions on the capabilities of LO. The results of the study demonstrated that there is a significant and direct effect of one dimension of IC on the learning capacity of the organization, i.e. the HC.

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