Learning organizations: diagnosis and measurement in a developing country context

The case of Lebanon

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Abstract

Purpose – The purpose of this paper is to assess the performance of a sample of Lebanese organizations *vis-à-vis* some of the core learning organization dimensions identified in the literature, focusing specifically on those dimensions that are considered most salient and relevant in the Lebanese context.

Design/methodology/approach – The paper capitalizes on a comprehensive literature review to identify the core dimensions of the learning organization construct to be tackled in the questionnaire. The questionnaire was then compiled, comprising 40 questions consolidated from the published literature, addressing seven key learning organization dimensions. Factor analysis following survey administration allowed for filtering five dimensions of learning organizations that are most salient in the Lebanese context.

Findings – Five salient characteristics of effective learning organizations are identified through factor analysis, namely employee participation, learning climate, systematic employee development, constant experimentation, and learning reward systems. The findings from the Lebanese sample *vis-à-vis* these five dimensions suggest that the main strength of Lebanese firms lies in systematic employee training, while their weakness rests in fostering continuous learning/experimentation.

Originality/value – This paper draws attention to the fact that varying dimensions of learning organizations are accorded attention in different cultures, and it is important to use measurement instruments focusing on these to derive value added insights.

Keywords Learning organizations, Developing countries, Lebanon

Paper type Research paper

Introduction

Recent years have witnessed a proliferation of writing on the learning organization. Burgeoning interest in the learning organization paradigm has stemmed from the advent of globalization and technological innovation, rendering firms increasingly vulnerable to change. In this environment, there is an increasing realization that reliance on past experiences or simplistic prescriptions will not be sufficient to ensure success. What is instead needed is a fundamental change in orientation and the deployment of proactive strategies that promote continual modification and adaptation (Gardiner and Whiting, 1997; Dowd, 1999).

Although the essence of the learning organization paradigm is simple, revolving around nurturing a positive propensity to learn, adapt and change, research on the learning organization is still characterized by vagueness and abstraction (Örtenblad, 2004). This is reflected in the proliferation of definitions and characterizations of learning organizations and the emphasis accorded by different authors to different

aspects of the learning organization, aggravating the conceptual muddle already in existence. However, such conceptual abstraction, if not addressed, risks undermining the utility that can potentially accrue from a promising change paradigm.

At the empirical level, there has been a proliferation of studies that have attempted to examine the dynamics of learning organizations or the extent to which organizations are nurturing internally the conditions that foster learning. However, empirical studies remain very scant in developing countries. The few studies that have been conducted have noted in this respect the importance of integrating cultural dimensions (e.g. Abu Khadra and Rawabdeh, 2006) and accounting for distinctive learning orientations across cultures (Bhatnagar, 2006). Admitting that business performance measurement in the context of the learning organization paradigm is in danger of becoming confused because of the existing complexity, and that the measurement criteria are nebulous and variable, the literature is characterized by the scant and fragmented availability of specific tools or diagnostic instruments that allow the capture of unique cultural orientations as reflected in emphasis on specific learning organization dimensions.

Lien *et al.* (2006) posed some questions pertaining to the applicability of the learning organization paradigm in Taiwan. We pose a similar set of questions in assessing the understanding and application of the learning organization concept in the Lebanese context. Initially, we briefly trace the evolution of the learning organization paradigm, and compile a list of different formulations of the learning organization. From the literature, the research extracts the different core characteristics of the learning organization construct. These core characteristics are then incorporated into a learning organization assessment instrument, and factor analysis is used to filter the core dimensions that are of most relevance in the Lebanese context. Findings *vis-à-vis* these main factors are then used to promote a better understanding of how Lebanese organizations are adapting to the concept of learning organizations and their respective strengths and weaknesses in relation to these dimensions. Insights from studies in other contexts are also drawn along these dimensions and conclusions delineated accordingly.

Concept evolution and definition

The term "learning organization" has recently become fairly implanted within the strategic and management literature. Various writings have shaped the evolution of the concept over time, including the theory of "deutro learning" by Bateson, the action learning theme by Revans and the systems thinking approach popularized in the 1950s (Leitch *et al.*, 1996). Other important currents influencing the concept are the organizational development tradition of the 1970s, the total quality movement of the 1980s, and recent shifts to globalization, deregulation and the information-based society (Finger and Woolis, 1994; Pedler *et al.*, 1997).

A turning point in the learning organization literature was the publication of *The Fifth Discipline*, by Peter Senge (1990), which integrated various themes into a systematic learning organization framework revolving around five core disciplines. These include personal mastery, mental models, team learning, shared vision and systemic thinking. Yet, despite Senge's influential contribution, and the continuing proliferation of writing on the subject, there is still a level of conceptual ambiguity, prompting some authors to argue that the learning organization begs more questions than it answers (Leitch *et al.*, 1996). This is consistent with the frequent

characterization of the learning organization as a journey rather than a destination (Burdett, 1993), a dynamic quest rather than a concrete outcome (Gardiner and Whiting, 1997; Örtenblad, 2004), a "tentative road map, still indistinct and abstract" (Watkins and Golembiewski, 1995, p. 99). Jashapara (1993) metaphorically presents the pursuit of the learning organization as a firm's continual quest for the Holy Grail. The fact that the concept remains a difficult animal to describe concretely in turn explains the presence in the literature of varying definitions, a sample of which are presented chronologically in Table I.

Author	Definition of learning organization
Senge (1990)	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 how to learn
Garvin (1994)	An organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights
Nevis *et al.* (1995)	An organization that has woven a continuous and enhanced capacity to learn, adapt and change. Its values, policies, practices, systems and structures support and accelerate learning for all employees
Gephart *et al.* (1996)	An organization in which learning processes are analysed, monitored, developed, managed and aligned with improvement and innovation goals
Pedler *et al.* (1997)	An organization that facilitates learning for all its members and consciously transforms itself and its context
Dowd (1999)	A group of people dedicated to learning and improving forever
Griego *et al.* (2000)	An organization that constantly improves results based on increased performance made possible because it is growing more adroit
Rowden (2001)	An organization in which everyone is engaged in solving problems, enabling the organization to continuously experiment, change, and improve, and increasing its capacity to grow, learn, and achieve its purpose
Lewis (2002)	An organization in which employees are continually acquiring and sharing new knowledge and are willing to apply that knowledge in making decisions or performing their work
Armstrong and Foley (2003)	A learning organization has appropriate cultural facets (visions, values, assumptions and behaviors) that support a learning environment; processes that foster people's learning and development by identifying their learning needs and facilitating learning; and structural facets that enable learning activities to be supported and implemented in the workplace
James (2003)	An L-form is more than adaptive; it is transformational. Thus, it engages everyone in the exploration, exploitation, and transfer of knowledge, increasing the collective learning throughout the organization and the capacity to create its future
Moilanen (2005)	A learning organization is a consciously managed organization with learning as a vital component in its values, visions and goals as well as in its everyday operations and their assessment

Table I.
Sample definitions of
learning organization

The building-blocks of learning organizations
While learning organizations have been defined and described in many different ways, assessment efforts have been more scant and uniform. Practical diagnostic efforts have integrated and benchmarked a variety of characteristics, highlighting different approaches and perspectives. These various characteristics have either been tracked in case-study type research or alternatively integrated in questionnaires that have been administered to business organizations in an attempt to gauge their learning organization propensity.

Table II reveals that there is no consensus on a definitive set of differentiating attributes of learning organizations. Some characteristics, however, recur in different studies, suggesting independent corroboration of the importance of these qualities as building blocks for effective learning organizations. A thorough review of post-1995 studies with a measurement orientation suggests that some frequently mentioned qualities include leadership, strategy, participative policy making, teamwork, self-development opportunities, information flow, structural considerations, a learning climate, experimentation opportunities as well as learning reward availability (Hong and Kuo, 1999; Holton, 2001; Rowden, 2001; Reichart, 1998; Garvin, 1994; Holt *et al.*, 2000; Griego *et al.*, 2000; Thomsen and Hoest, 2001; Goh, 2003; Porth *et al.*, 1999; Gardiner and Whiting, 1997; Watkins and Marsick, 1998).

The most important contributions in the way of measurement have indeed come from Watkins and Marsick (1998) and Pedler *et al.* (1997). The Watkins and Marsick (1998) instrument tackles seven core dimensions of learning organizations, revolving around continuous learning, dialogue and inquiry, team learning, embedded systems, systems connections, empowerment, leadership, financial performance and knowledge performance (Watkins and Marsick, 1998). This instrument has been scientifically tested and its validity has been confirmed. The Pedler *et al.* (1997) instrument tackles 11 dimensions (namely learning approach to strategy, participative policy-making, enabling structures, learning climate, self development opportunities, boundary workers as environmental scanners, inter-company learning, informating, formative accounting and control, internal exchange and reward flexibility), which are in turn grouped into five categories delineated as strategy, structures, learning opportunities, looking in and looking out (Pedler *et al.*, 1997).

Variations of these core dimensions of learning organizations are addressed in other research studies on offer. For example, Armstrong and Foley (2003) identified four core dimensions of learning organizations, revolving around the learning environment, identification of learning and development needs, meeting learning and development needs and applying learning in the workplace. Griego *et al.* (2000) merged two diagnostic tools, resulting in a new version that addresses similar dimensions, namely training and education, rewards and recognition, information flow, vision and strategy and individual and team development. The latter study suggests the importance of considering learning systems at individual, team and organization levels as well as organization transformation, which addresses vision, culture, strategy, structure, people, empowerment and knowledge management processes.

Earlier studies include that of Mayo and Lank (1994), who developed the Complete Learning Organization Benchmark, a comprehensive instrument consisting of 187 questions and nine dimensions. The questionnaire stresses diagnosing the actions which are most important in developing a learning organization. The emphasis is

Author	Identified characteristics	Most frequently mentioned characteristics
Watkins and Marsick (1998)	Continuous learning Dialogue and inquiry Team learning Embedded system Empowerment Leadership Financial performance Knowledge performance	
Pedler *et al.* (1997)	A learning approach to strategy Participative policy making Informating Formative accounting and control Internal exchange Reward flexibility Enabling structures Workers as environmental scanners Inter-company learning Learning climate Self-development opportunities	
Griego *et al.* (2000)	Training and education Rewards and recognition Information flow Individual and team development Vision and strategy	Leadership Learning strategy Participative policy making Enabling structure Learning climate Learning opportunities Rewards for learning
Porth *et al.* (1999)	Employee development/continuous learning Information sharing and collaboration Team building and shared purpose	
Tannenbaum (1997)	Learning opportunities Tolerance of mistakes High performance expectations Openness to new ideas Policies and practices support training Awareness of big picture Satisfaction with development	
Sarala and Sarala (1996)	Philosophy and values Structure and processes Leading and decision making Organizing the work Training and development Internal and external interactions	
Gardiner and Whiting (1997)	Self-development Learning strategy Learning climate Participation in policy making Use of information Empowerment Leadership and structure Links with external environment	

Table II.
Characteristics of learning organizations by author

placed on organizational factors, individual and team-based learning, as well as managing and leading. Sarala and Sarala (1996) have introduced another diagnostic tool, tackling dimensions revolving around philosophy and values, structure and processes, leading and making decisions, organizing the work, training and development as well as the internal and external interactions of the organization. Tannenbaum (1997) in turn evolved his own tool on the basis of scientific research, which was mainly concerned with the learning environment.

Similar dimensions had been highlighted in other research, notably a study by Rosengarten (1995), who uncovered several of the same key characteristics in his meta-analysis of 30 approaches to learning organizations, including team work and team learning, flow of information, education and training of the workforce, learning reward system for employees, experimentation, decentralized hierarchies and participative policy-making. A study by Nevis *et al.* (1995) identified a similar set of ten facilitating factors of learning organizations, including scanning imperative, performance gap, concern for measurement, experimental mind set, climate of openness, continuous education, operation variety, involved leadership and systems perspective. A similar but shortened list of factors was delineated by Lipshitz *et al.* (1996), including open information flows, organizational learning culture, and organizational learning mechanisms, encompassing structural factors/reward processes.

This brief overview of different research studies on learning organizations demonstrates unequivocally that there is no consensus on an absolute set of definitive attributes of learning organizations, nor is there a firm consensus on one best measurement tool. There is, however, clearly a convergence in delineating the most important differentiating dimensions of learning organizations, and these seem to encompass elements of leadership, strategy, participative policy making, structure, learning climate, learning opportunities (including training and development) and rewards for learning, as illustrated in Table II.

Admitting that there is no universal blueprint for a learning organization, there is increasing consensus in the literature that the characteristics described above constitute important preconditions or ingredients that should be carefully nurtured, cultivated and integrated in the quest for the Holy Grail. Our research methodology section illustrates how these characteristics were used to measure learning performance in the context of a sample of Lebanese organizations and gauge the extent of successful evolution of Lebanese firms in the direction of effective learning organizations. Before proceeding, however, we present an overview of studies in the context of other regions/countries, uncovering commonalities in the orientation and findings of different streams of learning organization research.

A glimpse of previous research into learning organizations
There are no reported studies in Lebanon that address the notion of learning organizations. Studies in the region are also very scant but are starting to materialize in some countries like Turkey and Jordan. We present below an overview of some studies that have been conducted in various parts of the world to shed some light on previous research orientations into the topic. Different threads of research from different regions generally point to common themes in discussions of learning and learning organizations, primarily revolving around the factors discussed in Table II,

including leadership, strategy, participative policy making, structure, learning climate, learning opportunities, and rewards for learning.

Hernandez (2003), for example, tackled the dimensions of a learning environment in Colombia. He found that the learning organization environment has a positive influence on the transfer of tacit knowledge and in turn on performance improvement. The latent construct learning organization environment was gauged indirectly through seven indicators derived primarily from Watkins and Marsick (1998), including continuous learning, empowerment, team learning, embedded systems, dialogue/inquiry and leadership. Akin Aksu and Özdemir (2005) investigated nine dimensions that enable organizational learning in hotel establishments in Turkey. They maintained that leaders have a fundamental role to play in promoting organizational learning by enticing individual learning through teamwork, rewards, training, and other organizational mechanisms. Likewise, Lien *et al.* (2006) tackled the learning organization concept in Taiwan, suggesting that the dimensions of the learning organization proposed by Watkins and Marsick (1998) are also applicable in the Taiwanese context.

Kidd and Teramoto (1995) assessed Japanese firms headquartered in Europe. They could not find any significant evidence suggesting that the Japanese firms in Europe were becoming learning organizations. They concluded, however, that the CEOs of these companies play a key role pertaining to the development of learning in their organizations. Amitay *et al.* (2005) conducted a study of organizational learning in 44 healthcare entities in Israel. They found a strong relationship between transformational leadership and organizational learning and organizational learning mechanisms. They concluded that transformational leaders play a central role in anchoring and promoting values conducive to learning in their organizations.

Birdthistle and Fleming (2005), investigating Irish family firms, found that micro, small and medium-sized family firms exhibit some, though not all, aspects of a learning organization. Their research suggests that micro firms in particular face difficulties in creating continuous learning opportunities. Such learning opportunities were generally nurtured on an informal basis rather than a formal basis. They suggested that strategic reviews and culture change are critical ingredients in developing the organizational learning capabilities of small and medium-sized family firms. Investigating the efforts of a local government organization in Australia, Sharma (2005) suggested that more time and effort were needed in the cultural transformation domain in addition to better coordination and integration of activities in way of a successful evolution and convergence towards a learning organization model.

Dymock (2003) asserted, based on an Australian case study, that even for an organization that is strongly on its way to becoming an effective learning organization, subsequent advances are typically incremental, painful and slow, given that the transformations involved (e.g. creation of an environment of trust and openness, empowerment, and self-managed teams) require much "unlearning and relearning" and the remolding of long-held assumptions. In a study in the Malaysian public sector, Maria (2003) found that the learning culture of the organization has an effect on the use of innovation, and that embedded systems, leadership, continuous learning and team learning explained the variance in the use of innovation more than other dimensions of the learning organization. Kumar (2005) studied learning in Malaysia's private colleges, noting that individual, team, and organizational levels of learning were

significantly related with financial performance and knowledge performance measures.

In a recent study in the Jordanian context, Abu Khadra and Rawabdeh (2006) evolved their own learning organization framework, based on combining the different models on offer. Their framework addresses five dimensions of learning organizations, namely leadership and strategy planning, continuous alignment with strategy, learning organization practices, learning infrastructure and performance evaluation. Their empirical research in Jordan reveals that the learning organization approach of Jordanian companies revolves around five components, namely learning and information sharing, vision and strategy, rewards and recognition, benchmarking and training, with the learning and development component showing the most significant and positive relationship to company performance.

No documented studies of learning or learning organizations are available on Lebanon. This underscores the need to pursue this line of research and attempt to shed some light on and derive some insights into the understanding and application of learning organizations in this context. The present study is a preliminary attempt in this direction. The research methodology is presented in the next section, followed by our research findings in the Lebanese context. We note that consistent with the studies presented above, which reflect mixed results and sketchy evolution towards learning organizations in various contexts, Lebanese firms are according systematic attention and exhibiting progress *vis-à-vis* only some of the dimensions of the learning organization.

Research methodology
A questionnaire was designed to collect information about the main learning organization dimensions and practices that are perceived as most salient by Lebanese organizations. The questionnaire was comprised of 40 questions, consolidated from the published literature and the instruments on offer, and addressing the core dimensions of learning organizations synthesized in Table II, namely leadership, learning strategy, participative policy making, enabling structure, learning climate, learning opportunities and rewards for learning. The questionnaire synthesized questions from different instruments addressing these dimensions, including the Dimensions of the Learning Organization Questionnaire (DLOQ) by Watkins and Marsick (1998), but mostly the Learning Company Questionnaire by Pedler *et al.* (1997). The idea was then to administer the questionnaire in Lebanon, and filter through factor analysis the main dimensions that are perceived as most salient by Lebanese managers in terms of developing learning organizations in their specific context.

The first step was therefore to develop a parsimonious instrument, tailored to a population of managers that is not necessarily immersed in the language of learning organizations, yet adequately reflects or represents the core dimensions of the learning organization delineated in Table II. Accordingly, our survey came to include 40 simple questions derived from previously validated questionnaires, specifically addressing the dimensions of leadership, learning strategy, participative policy making, enabling structures, learning climate, learning opportunities and rewards for learning. Minor refinement or adjustment to wording was introduced to some questions in way of simplification but the essence of the meaning was retained. Respondents were requested to express their views/opinions *vis-à-vis* each of the questions or statements

using a five-point Likert scale. The survey was administered in March-May 2005 to a sample of 75 companies operating in Lebanon. From an initial random sample of 75 companies, a working sample of 57 companies who provided full questionnaires was extracted. Tables III and IV provide pertinent information regarding the sample, illustrating that the companies included were of different sizes, with a larger pool of medium-sized companies. The sample also included companies operating in different economic sectors, allowing us to measure and benchmark successful integration of the core building blocks of learning organizations in the context of different industries (Table IV).

The data collected was then analyzed, using the Statistical Package for Social Sciences (SPSS). Factor analysis was used to identify the learning organization dimensions that are most salient in the Lebanese context. All 40 items were factor analyzed using principal component analysis followed by Varimax rotation. The initial factor solution resulted in nine factors with eigenvalues greater than 1. The nine-factor solution accounted for 76.2 percent of the variance. Items were identified which had no strong loadings on any of the factors (less than 0.5) and were consequently eliminated. The reliabilities of seven of the nine scales were acceptable. Reliabilities for two factors were not acceptable and accordingly these were excluded from the analysis. The conceptual analysis of the remaining items led to the elimination of three items and two factors. The number of items that remained after factor analysis and reliability analysis became 16 items loading on five factors out of the original 40 items. Table V provides information about the scale, including Cronbach's α estimates of scale reliability, while Table VI presents the questionnaire items corresponding to each factor.

The research methodology adopted has accordingly allowed for the filtering, based on empirically grounded research, of five core dimensions of learning organizations that are considered most salient or relevant in the Lebanese context (see Figure 1). These dimensions thus evolve from this study as the most important dimensions of learning organizations in Lebanon based on the perspective and experience of practising managers. In other words, Lebanese firms exhibit attention/progress in relation to some but not all aspects of a learning organization. This is consistent with

Size	Frequency	Relative frequency (%)
Small (< 50 employees)	15	26
Medium (51-500 employees)	24	42
Large (> 500 employees)	18	32

Table III.
Sample size profile

Industry	Frequency	Relative frequency (%)
Construction	2	4
Distribution, hotels and catering services	13	23
Transport, communication, telecommunications	8	14
Banking, finance, insurance services	12	21
Other	22	39
Total	57	100

Table IV.
Sample industry profile

Factors	Cronbach's α	Q	1	2	3	4	5	
Employee participation	0.65	Q23	0.759					
		Q26	0.626					
		Q33	0.590					
		Q40	0.580					
Learning climate	0.73	Q35		0.666				
		Q36		0.650				
		Q34		0.617				
Systematic employee development	0.83	Q6			0.826			
		Q7			0.818			
		Q8			0.654			
Continuous learning and constant experimentation	0.84	Q20				0.835		
		Q21				0.800		
		Q39				0.678		
		Q22				0.573		
Learning reward systems	0.80	Q14					0.881	**Table V.**
		Q16					0.837	Factor analysis results

what is reported in the literature, for example in Ireland and Jordan (see Birdthistle and Fleming, 2005; Abu Khadra and Rawabdeh, 2006). The next section presents the research findings *vis-à-vis* the five dimensions respectively, highlighting the strengths/weaknesses of the sample studied in relation to these dimensions. The findings will also be compared to what has been reported in other contexts *vis-à-vis* these specific dimensions to highlight cross-cultural nuances in the pursuit of learning organizations.

Research findings
Descriptive statistics for the five learning factors are presented in Table VII. It is clear that respondents perceived their organizations to be highest on systematic employee development (education and training), learning climate (or supportive learning cultures), and employee participation. On the other hand, Lebanese organizations do not seem to be according the same attention to the alignment of the reward system with learning and fostering continuous learning and constant experimentation. To gain greater insights into the implications of the findings, the survey was supplemented by interviews with managers, line employees and human resource staff at some of the participating organizations. We also compare our findings for each dimension to other relevant findings that have been reported in the literature.

The findings generally confirm Nevis *et al.*'s (1995) observation that all organizations function as learning systems and engage in some form of collective learning as part of their development. The notion that collective learning is crucial to organizational success seems to be increasingly grounded and appreciated even in the context of developing country firms. This is based on a growing awareness of the need to nurture a learning propensity to cope with increasing environmental complexity and volatility.

Systematic employee development seems highly valued in the Lebanese context, allowing for the development of inimitable competencies. The formal educational interventions necessary to supplement knowledge acquisition, sharing and utilization

| Factor	Sample item
1. Employee participation	Policies are significantly influenced by the views of stakeholders
.	Employees express opinions freely to their peers and superiors
	Employees' input is accorded due attention and consideration
	Employees take part in policy and strategy formulation
2. Learning climate	Employees make time to discuss, exchange, and learn from what happens
	Differences of all sorts are recognized and valued as essential to learning
	Mistakes are tolerated during learning and early applications
3. Systematic employee development	There is clear commitment to training by top management
	Education and training are carried out systematically at all levels and in all functions
	Resources for self-development are made available to all stakeholders
4. Continuous learning and constant experimentation	Employees are committed to questioning and constant inquiry
	Employees experiment systematically by searching for and testing new knowledge
	Employees are frequently engaged in learning and exploring new ideas
	Managers facilitate experimentation and trying new things
5. Rewards for learning	Rewards are given to employees for acquired skills and contributions
	Employees who take initiative and calculated risks are supported and rewarded

Table VI.
Questionnaire items
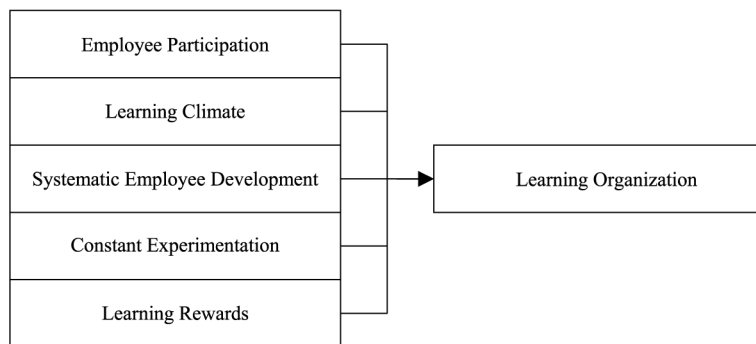
Figure 1.
Most relevant learning organization dimensions in the Lebanese context

are thus accorded attention in the context of Lebanese firms and self-development resources systematically made available. This is consistent with what has been reported in the Jordanian context, where the learning and development factor seemed strongly significant and related to performance leading some authors to suggest that "learning and development is one significant predictor of learning organizations which companies may wish to focus on initially" (Abu Khadra and Rawabdeh, 2006). Note that in their case the factor considered is learning and development (not training and development), which also overlaps somewhat with our continuous learning factor below.

A learning climate constitutes the link between formal employee development and application in the sense that firms fostering a learning climate strengthen the connection between learning and application and maximize the benefits derived from their investment in employee development. Lebanese organizations understood a learning climate to imply time and space to permit employees to reflect on their actions, coupled with tolerance for mistakes, and most of the organizations interviewed sought to nurture a positive atmosphere that makes learning easy and natural. Reference was made in some of the interviews to a gradual change in the learning climate in recent years towards nurturing trust, openness, questioning, feedback and support, but that this change has been incremental and slow. This is consistent with what has been reported by both Dymock (2003) and Sharma (2005) in the Australian context.

Employee participation in policy-making was similarly an area of strength for the companies interviewed. Most organizations seem to value the importance of employee involvement, particularly at the level where decisions and actions materialize. While the extent to which employee input steers policy-making varies across the organizations sampled, most managers seemed positively inclined to nurture employee participation and to ensure that the policies and strategies adopted reflect the views of all members, not just top managers. This finding implicitly alludes to the critical role of leadership and management in fostering a participatory learning environment. The role of leaders in fostering learning and participative policy making has also been noted in other studies, notably in the context of Turkish and Japanese firms (see Akin Aksu and Özdemir, 2005; Kidd and Teramoto, 1995).

Measurement in the context of the learning organization should focus equally on gaps in organizational learning capacity. This does not negate the usefulness of learning processes that organizations are handling well. Awareness of a performance gap is important because it often leads the organization to recognize that learning needs to be remedied through particular interventions or to monitor and improve particular aspects, which can have a positive spill-over effect on the entire learning drive within the firm. Indeed, given the inter-dependency of the different factors, a

	n	Minimum	Maximum	Mean	SD
Employee participation	55	1.50	5.00	3.7045	0.72183
Learning climate	56	2.25	5.00	3.8929	0.69061
Systematic employee development	56	1.00	5.00	3.9881	0.95127
Continuous learning and constant experimentation	55	1.00	5.00	3.3136	0.94553
Rewards for learning	56	1.50	5.00	3.5714	0.83899

Table VII.
Descriptive statistics

weakness in any of the core dimensions may effectively undermine or curtail the learning process.

In this respect, the characteristic that has received the lowest ratings in the context of the Lebanese firms was continuous learning and constant experimentation. This characteristic is important because it allows the integration of knowledge into an actionable learning system and ensures that learning is fostered on an ongoing basis. Experimentation flourishes in the context of a supportive learning climate. In the absence of experimentation, however, a supportive learning climate will not take the firm's learning drive very far. Opportunities for experimentation were characterized as limited in the Lebanese context as in opportunities for questioning, exploring new ideas, and testing new assumptions. These are ingredients that usually differentiate innovative companies and that tend to be stifled in the context of routine and bureaucracy. Weaknesses pertaining to this dimension have been similarly noted in other contexts, notably in a recent study in India, suggesting that experimentation needs to be accorded more attention in Indian industry (see Bhatnagar, 2006).

Rewards in turn help flesh out which learning investments the organization values and supports. Our findings suggest that the Lebanese organizations interviewed have not made a systematic effort at aligning rewards with learning. In most cases, employees are not even rewarded for engaging in learning activities, taking initiative or acquiring new skills. However, this ruptured link risks undermining the entire learning process. Reward structures and schemes certainly make a difference, by affecting motivations and hence shaping employees' learning orientation and the amount of effective learning that takes place. Various studies point to the importance of crafting flexible and creative rewards for learning, and offering a mix of monetary and non-monetary rewards to cater for individual needs and performance (e.g. Pedler *et al.*, 1997). The importance of the rewards and recognition factor has been nicely captured in the Jordanian context, where the study reveals the importance of rewards in increasing employee adaptability and involvement in learning (please see Abu Khadra and Rawabdeh, 2006).

Concluding remarks
Recent years have witnessed the ascendancy of the learning organization paradigm, which has offered hope and critical insights for firms seeking to remain competitive in a hyper-dynamic environment. One reason frequently put forth for the growing popularity of this paradigm is the suitability of the learning organization model for today's dynamic global business environment (Porth *et al.*, 1999; Strachan, 1996). The learning organization is arguably a promising path for building sustainable competitive advantage in view of the easy replication of other sources of value creation and the corollary imperative of capitalizing on new knowledge, inferences and insights.

The available literature on learning organizations has generally accorded more attention to defining and describing than measurement. As Ulrich *et al.* (1993) noted, "to date, there have been far more thought papers on why learning matters than empirical research on how managers can build learning capabilities". However, as argued by Garvin (1993), the learning organization should be meaningful, manageable and measurable. Although many definitions have attempted to capture the essence (meaning) of the learning organization, it remains difficult to move from theory to

reality (management) without effective measurement (Campbell and Cairns, 1994). Measurement is important to offer guidance to managers in their efforts at diagnosing their organizations and providing a concrete framework for action.

This paper has attempted to take a preliminary step in the way of more systematic measurement in the Lebanese context, using a parsimonious scale of 40 statements derived and adapted from different measurement instruments. Factor analysis following survey administration in turn allowed the filtering of five core dimensions of learning organizations that are of most relevance in the Lebanese context, namely employee participation in policy-making, learning climate, systematic employee development, constant experimentation and rewards for learning. Our findings *vis-à-vis* these main factors were then used to promote a better understanding of how Lebanese organizations are adapting to the concept of learning organizations, suggesting that the strength of Lebanese firms lies in systematic employee development, while their weakness rests in fostering regular experimentation opportunities. Insights from studies in other contexts are also drawn along these dimensions, suggesting similar sketchy progress and attention accorded to different learning organization dimensions in different contexts.

Our research generally supports the view that progress towards the learning organization paradigm is incremental and long-term, rather than an overnight metamorphosis. Our findings, consistent with research findings in different contexts, support this observation, by pointing to sketchy patterns of progress *vis-à-vis* different dimensions of the construct. While learning should not be left to chance or overlooked, but rather valued and integrated into the organization and the work life of the employee, the process has to be constantly reinvigorated and reinforced with respect to different learning organization dimensions and considered more of a journey, or consistent quest for continual improvement and adaptation.

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