

THE RELATIONSHIP BETWEEN LEARNING CAPABILITY AND ORGANIZATIONAL PERFORMANCE: THE BANKING SECTOR IN GREECE

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Abstract

This study, examines the concept of the Learning Organizations in the Greek banking sector based on 'learning capability', organization factors (size and formalization) and performance measures. From the analysis of the results it is shown, that the five managerial practices, necessary for organizational learning, are used on the Greek banking sector at satisfactory levels. Concerning the relationship of the learning capability with performance, the results of this study show that 'learning capability' definitely affects positively the firm's performance, especially the non-financial measure of job satisfaction but also ROA. As far as the two organizational factors are concerned, size and formalisation, both have a negative direct impact on learning capability and a negative indirect impact on the relationship between learning capability and firm's performance. JEL Classification: L19.

1. Introduction

Many organizations have been attracted by the idea of the Learning Organization-LO (Bratton and Gold, 2003). Although there has been significant ambiguity surrounding the meaning of the term, there is little doubt about its impact; it became the vision of many organizations. Bratton and Gold (2003) quote KPMGs findings of a survey conducted in 1996 between chief executives. According to that survey, respondents believed that learning and adaptation must be driven by innovative and creative means, that learning must coexist with the change in their organizations environment and it is the key to the organization's survival and, finally, building a Learning Organization is a way of challenging and moving away from the current culture.

Few topics in the business area have received more attention over the last decades than that of the learning organization (Bennett 1998; Goh and Ryan 2002) as evidenced by the volume of literature devoted to this topic (Argyris

and Schoen, 1978 and 1996; Senge (1990); Goh and Richards, 1997; De Geus 1998). The growing of a global competitive environment and the influence of knowledge on building a competitive advantage may be the driving forces for this growing interest (Senge 1990; Kanter 1989). According to Chawla and Renesch (1995), organizations have to cope with social and economic changes, rapid developments in technology, situations where customers and suppliers can be both competitors and allies. To cope with this growing complexity organizations are recognizing the need to acquire and utilize increasing amounts of knowledge if they are to make changes to remain competitive. In such a turbulent environment organizational learning and the learning organization are increasingly perceived as sources of competitive advantage and intellectual capital (Senge 1990).

As it is demonstrated in the Literature Review, several research issues exist within the context of the LO. Most discussions around the LO concentrate on theoretical concepts rather than specific characteristics or practices that can actually make it happen. Moreover, there is very few empirical research testing the relationship between LO and firm performance, especially when taking into consideration other organizational factors, such as size and structure, that can also have an impact on firm performance. Finally the implementation of LO in the banking sector, worldwide seems to be of increasing importance especially under the huge changes banks are experiencing.

The purpose of this paper is to examine the organizational learning in the Greek banking sector based on learning capability, organization factors and financial and non-financial performance measures. As far as it is known there has been no research in this area in Greece.

2. Literature Review and Hypotheses

2.1 Learning Organization and Organizational Learning Capabilities

The literature around the LO is vast and takes various forms but as Argyris (1999) argues, the central idea behind the LO is broadly shared. The idea includes notions of adaptability, flexibility, avoidance of stability traps, experimentation, rethinking means and ends, realization of human potential for learning in the service of business purposes and creation of human development. This main concept is discussed by a lot of authors while different parameters are considered or emphasized.

According to Harrison (2000), one of the most quoted definitions of the LO

is that of Peddler et al. (1991, page 1): ‘an organization, which facilitates the learning of all its members and continuously transforms itself’.

Senge’s (1990) definition concentrates more on the contribution of employees. He defines the Learning Organization in terms of ‘great teams’: ‘A group of people working together to collectively enhance their capacities to create results that they truly care about’ (Senge, 1990, page 18).

Mills and Friesen (1992) proposes the following characteristics of LOs: they transfer learning among individuals and groups, are committed to learning, and process openness to the outside world. Within such a firm employees can challenge the status quo of the organization and continuously evaluate their activities with a view to improving performance.

Summarizing all those definitions we could say that the LO is an organization, which adopts specific strategies, mechanisms, and practices that encourage its members to learn continuously so that they can adapt to the changing business environment. Goh (1998) defined these practices as the ‘learning capability’ of the organization.

Ulrich *et al.* (1993), also use the term ‘learning capability’ as referring to ‘building and diffusing learning capability’ and DiBella *et al.* (1996), as ‘developing organizational learning capability’.

2.2 Fundamental Concepts of the Learning Organization

Several fundamental concepts have been developed around the LO, with each author developing different orientations in how a LO can be build. The concept of the LO was first mentioned by Argyris and Schoen (1978), with the creation of the concepts of single and double loop learning, and further discussed by Usher and Bryant (1989), and many others. Senge (1990) identifies five basic disciplines, each one providing a vital dimension in building a LO. Garvin (1993) also proposes five ‘building blocks’ of the LO. Gephart and Marsick (1996) developed the theory of the six interrelated systems that a LO is composed of, while Goh and Richards (1997) identified five major underlying organizational characteristics that can enable an organization to become a LO which called ‘the strategic building blocks’. Finally, De Geus (1998) created the concept of the ‘Living Company’ with a strong focus on learning how to change and be capable of making directions to change. Although, all those concepts differ and concentrate on different aspects, common themes continue to exist throughout the literature cited. Important organizational factors as leadership,

shared vision and mission, knowledge sharing, organizational culture, teamwork and systems thinking are common in the most of LO authors.

However, implementing organizational learning is not an easy task. For Garvin (1993, 1994) most discussions of organizational learning focus on high philosophy and grant schemes rather than the gritty details of practice. A similar view is held by Bennet (1998) who argues that, despite the benefits of the LO, little has been done about the way of devising valid and reliable instruments for measuring organizations propensities to behave as LO. Finally, according to Ulrich, Jick and Von Glinow (1993) there have been more thought papers on why learning matters than empirical research on how managers can build learning capability.

2.3 Research Hypotheses

The philosophy of the principles of human resource management (HRM) during the last decade have led to the acceptance of the idea that people and not capital add to the competitive edge (The Sunday Times, 17 November 1996). Pfeffer (1994) believes that organizations, nowadays, realize that the human resource practices are one of the major contributors in achieving a sustainable competitive advantage. According to Garvin (1993) this can be accomplished by building a learning organization.

According to Reynolds and Ablett (1998) the importance of learning and knowledge is generally accepted as of increased significance among management theorists. Drucker (1993) sees traditional factors of production such as labour, land and capital as secondary with the only meaningful resource today being knowledge.

For Garvin (1994) becoming a learning organization is seen by some managers as a strategy to create intellectual capital and competitive advantage by placing learning at the center of the organization's activities. Lennon and Wollin (2001) argue that this intellectual capital is difficult for competitors to imitate and it conveys competitive advantage on the organization. Organizations, that can identify and foster their organizational learning, enhance their intellectual capital in the form of knowledge and know-how about their organization's learning, that is, how it learns, how to learn and how it encourages its own learning.

Marchington and Wilkinson (2003, page 370), also, comment that the ability of learning organization to transform itself is perceived as important to those organizations attempting to compete in the global marketplace for value added goods and services and in which rapid responses are seen as critical.

Other authors add to this view (Mills and Friesen, 1992; Pearn *et al.* 1995), by arguing that LOs generally outperform their rivals especially in turbulent and intensively competitive market environments. In those environments LOs are said to be able to cope with unstable environments and to anticipate future opportunities and threats (Bennett, 1998).

For Day (1994) financial performance is said to be enhanced by an organization's, ability to learn. Slater and Narver (1995) state that learning organizations are better versed in strategies for dealing with customers and competitors alike, which in turn, should lead to superior profitability. Moreover, they argue that a firm that actively learns about its customers is in a position to offer more appropriate and finely targeted products. This should result in a higher level of sales growth.

Some authors have claimed that learning may even be the only sustainable competitive advantage (De Geus, 1998), since it is not readily imitable and creates the ability for organizations to respond and change rapidly.

From above, the following hypothesis could be formed:

H1: *Learning capability leads to competitive advantage, thus, it is positively related to the firm's total performance.*

Although there is plenty theoretical background supporting a positive relationship between LO and competitive advantage (i.e., performance), there is very few empirical research testing this relationship. For example, Goh and Ryan (2002), identified no positive relationship between learning capability and financial performance. However, learning capability was positively related with a non-financial performance measure, job satisfaction. This research was based on their previous work on the 'learning capability of the organizations' (Goh and Richards, 1997), which consisted of five management practices necessary for organizational learning. These five organizational learning dimensions were called 'the strategic building blocks' and described as follows

1) Clarity of Purpose and Mission. The organization needs to have a clearly articulated purpose. Employees need to understand this purpose and how the work they do contributes to attainment of the mission of the organization.

2) Leadership Commitment and Empowerment. Leaders need to be committed to the accomplishment of organizational goals and to the goal of learning. In addition climate of trust should be created where people are approachable and mistakes are a part of the learning process.

3) Experimentation and Rewards. The organization's structures and systems must support experimentation. The freedom to experiment with new and innovative methods are encouraged and supported.

4) Transfer of Knowledge. Communications should be clear and fast. Information should be cross-functional and directed to the overcoming of all sub-unit obstacles within the organization.

5) Teamwork and Group Problem Solving. Structures and systems in the organization need to encourage teamwork and group problem solving by employees and reduce the dependency on upper management.

Scherer (1973) argues that, besides the link between the LO and performance, firm size is generally hypothesized to have a positive impact on profit rates, while Porter (1979) argues that the relationship between firm size and profitability may be industry specific.

Finally, according to Hopkins and Hopkins' (1997) study a positive association was found between planning and performance, particularly in dynamic and complex environmental settings, whereas planning formalization (for instance, written plans) showed no clear performance relationship.

Consequently, the following hypothesis could be formed

H2: *Performance is influenced by organization factors such as formalization and firm size.*

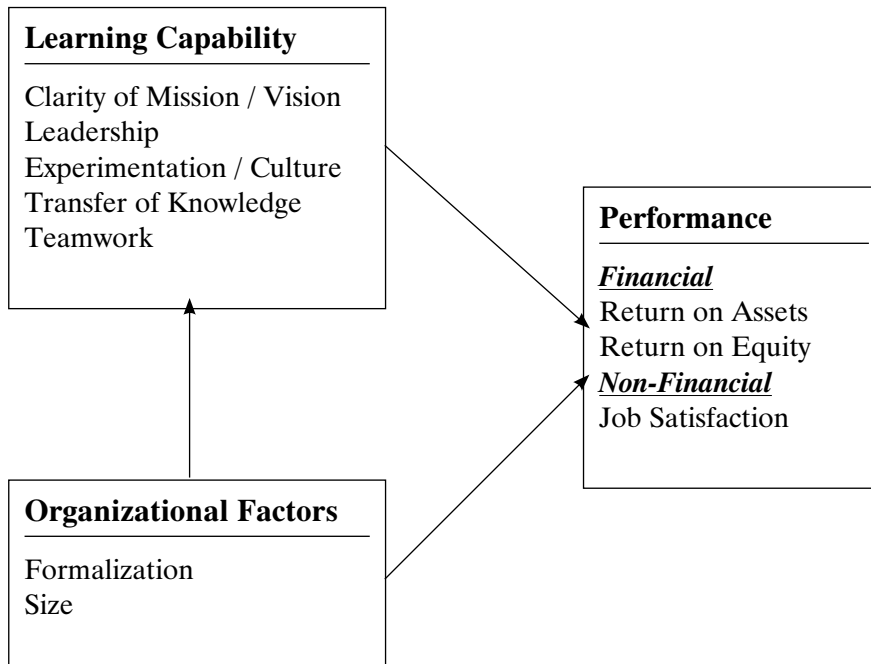
There is also plenty of literature concerning the relationship between Learning Capability and organization factors as formalization and firm size. According to Leonard (1992), learning requires openness to new ideas and a high degree of experimentation. For McGill *et al.* (1992) and Dibella *et al.* (1996), willingness to accept all types of opinions and experiences is crucial, while Garvin (1993) argues that openness to new ideas promotes experimentation, since it involves the search for flexible and innovative solutions. From the above, formalization within the organization seems to have a negative relationship with learning capability.

With regard to an organization's size, Marquardt and Reynolds (1994) consider firm size a key impediment to organizational learning. However, Simonin (1997) and Gomez *et al.* (2003) argued that firm size did not affect organizational learning, although Simonin (1997) notes that the question of small organizations being more or less efficient learners remains to be explored directly.

Consequently, the following hypothesis could be formed

H3: *Learning Capability is influenced by organization factors such as formalization and firm size.*

These hypotheses could be presented in a form of a conceptual framework, similar to the one presented by Goh and Ryan (2002: p 5)



2.4 The Banking Sector

The banking sector, worldwide, is undergoing a process of organizational, technological and normative change, starting to implement changes and innovations in the organizational and training structure. The move from a traditional and hierarchical structure towards a more flexible one is a difficult process. The information flows among individuals and organizations play a key role in this process. The implementation of LO in the banking sector seems to be of major importance in the framework of the shift from the industrial to the knowledge economy, which nowadays leads all economic sectors (Lobster project 1, 2004).

According to Martin-Rubio (1998), the transfer of knowledge into the banking industry is a more complex problem than in any other area because of

the conservative character banks usually have. Large and complex organizations like banks usually find difficulties in capturing and transferring the knowledge. Davenport and Prusak (2000) comment that banks changed habits and work practices very recently in order to introduce task innovations related to knowledge and learning methods. The right knowledge and learning methods that should be used should fit to organizational culture.

3. Research Method

3.1 Sample

For the purpose of this study: (a) The non-probability sampling was used, because of the small number of companies belonging to the industry under examination, for including all banks in the authors sample (13 banks in total), and (b) the probability sampling was used for the identification of the respondents, which include bank employees from all levels in the hierarchy, because the authors wished to generalize findings directly onto the rest of the population.

Concerning the sample, from the total population of 13 banks, 3 banks refused to participate in the research after the discussion the authors had with them about the objectives of the study. Thus, 10 banks participated in the research, 3 public (state owned) and 7 private. The questionnaires were handed over to the manager, who was assigned this responsibility by the CEO of each bank, with the duty of distributing and collecting them back from the respondents (20 questionnaires per bank). Before the distribution of the survey, a meeting was held, with each responsible manager, explaining to him the purpose of the study as well as answering any questions he had.

In the following table we can see the overall survey return rate for both private and public banks. From the 200 questionnaires distributed only 122 came back and from these the authors finally used only 98, which were properly completed with no mistakes or missing data (table 1).

3.2 Data Collection Method

The authors decided to adopt the survey proposed by Goh and Richards (1997), for two reasons: (a) It was already tested by the two authors for reliability and validity, and (b) comparisons of the author's results in Greece could be made with their results in Canada, increasing the generalizability of the results. However, due to the application of a research tool to different

environment (Greece), some changes were made, in the Greek questionnaire, mainly concerning the translation from English to the Greek language and the meaning of the words (concepts) for better understanding by the Greek bank employees, and pilot testing had been done (Saunders *et al.*, 1997). Questionnaire was pilot tested by five top bank executives of different Greek banks, three academics of the Technological Education Institute (TEI) of Kavala, and two specialized business consultants before fully issuing it in order to pick up problems or limitations.

The questionnaire of Goh and Richards (1997), includes 38 questions. The first 21 questions measure the five strategic building blocks that, according to the two authors, identify the learning capability of an organization. Questions 22 to 28 measure the organization structure using a formalization scale. Finally, questions 29 to 38 measure the construct of job satisfaction (one of the three measures of performance measurement). It also uses a seven point Likert interval scale, from 1 'strongly agree' to 7 'strongly disagree'.

3.3 Validity and Limitations of the Research

The first weak point of the paper relates to the number of bank employees that filled the questionnaire in. As it was explained previously in the Sampling part, there were only 98 questionnaires completed properly. This number, of course, cannot be considered as indicative of the employees' perceptions of the whole Greek Banking industry. Also the fact that the study focuses almost exclusively on the Greek Banking industry, it may deny the potential of international application.

Moreover it must be specified, that the scales and methods of this research had an experimental nature although they had also been used in the past by other authors (Goh and Ryan 2002). Finally there is the limitation of using only some of the financial measures that identify the financial performance of a firm.

4. Results

Table 2 demonstrates the factor analysis and reliability analysis (the estimation of Cronbach's Alpha) that was undertaken, to test the reliability or internal consistency of the seven complex constructs (variables): Based on the results of these two analyses, it seems that all complex constructs / variables were properly measured by their specific items.

The constructs of learning capability, formalization, and job satisfaction for

each building block of questions were then estimated (table 3). Almost all banks score high, which means that their policies and procedures are aligned with those concepts that facilitate learning. Private Banks seem to focus to a greater extent towards learning practices as evidenced by the statistics. Moreover a close relationship can be viewed of the banking organizations with formalization, with public banks demonstrating a greater focus on formalized cultures in relation to private banks. Finally job satisfaction also showed relatively high scores, demonstrating positive job satisfaction levels of the banking employees.

Since the average scores (mean values) for each observation (questionnaire) and each individual concept / variable (learning capability, formalization, and job satisfaction) were estimated, the relationship between these variables can be identified using the statistical method of Pearson Correlation (table 4).

Table 4 shows the following

- Learning capability is positively related to job satisfaction ($r_p=0.643$), a non-financial measure of the firm's performance, and this relationship is statistically significant ($p=0.000<0.01$) at the 0.01 level (2-tailed).
- Learning capability is negatively related to formalisation ($r_p=-0.049$) but the relationship is insignificant.
- Formalisation is positively related to job satisfaction ($r_p=0.027$) but the relationship is insignificant.

In order to examine the relationships between all the concepts / variables of the proposed model (learning capability, formalisation, size, job satisfaction, and the two financial performance measures of ROA and ROE), the mean values of each variable for each participating bank was estimated, except for size and the two performance ratios of ROA (Net Profits/Total Assets) and ROE (Net Profits/Shareholders Equity).

These two performance measures were estimated for a 5-year period for each bank and were averaged for the past five years of 2001-2005. Size measurement was based on the reported assets of each participating bank and it is the average of the past 3 years, 2003-2005, in million Euros (table 5).

Table 5 shows the following

- Learning capability is positively related to job satisfaction ($r_p=0.734$), a non-financial measure of the firm's performance, and this relationship is statistically significant ($p=0.003<0.01$) at the 0.01 level (2-tailed).

- Learning capability has a very small positive relationship with ROE ($r_p=0.164$), one of the two financial measures of the firm's performance used in our study but it is statistically insignificant ($p=0.256>0.05$). On the contrary, its relationship with the second financial performance measure ROA is negative, $r_p=-0.244$, but the relationship is statistically insignificant ($p=0.087>0.05$).
- Learning capability is negatively related to both organizational factors. With formalisation, correlation coefficient $r_p=-0.414$ and the relationship is significant ($p=0.003<0.01$) at the level of 0.01 (2-tailed). With size (assets), $r_p=-0.327$ and the relationship is significant ($p=0.020<0.05$) at the level of 0.05 (2-tailed).
- Formalisation is negatively related to all performance measures, financial and non-financial, but all are statistically insignificant, except its relation to ROA ($r_p=-0.331$, and $p=0.019<0.05$). On the contrary, size (assets) is positively related to all performance measures, financial and non-financial, but all are statistically insignificant, except its relation to ROE ($r_p=-0.426$, and $p=0.002<0.01$).

In the presented model the researchers clearly show a direct effect of the organizational factors to the performance of the firm, as well as an indirect effect, which comes from the effect of organizational factors to the learning capability and thus to performance. The authors test these relationships, using partial correlation analysis, considering the two variables of organizational factors, formalisation and size, as control variables. In this way the relationship(s) between learning capability, and firm performance is identified (job satisfaction, ROA and ROE), without the moderating effects of the two control variables (Table 6).

Table 6 shows that

- Learning capability is positively related to job satisfaction ($r=0.8130$), a non-financial measure of the firm's performance, and this relationship is statistically significant ($p=0.000<0.01$) at the 0.01 level (2-tailed).
- Learning capability is negatively related to ROA ($r=-0.3919$), one of the two financial measures of the firm's performance, and this relationship is statistically significant ($p=0.006<0.01$) at the 0.01 level (2-tailed).
- Finally, learning capability is positively related to ROE ($r=0.3466$), the second financial measure, and this relationship is statistically significant ($p=0.016<0.05$) at the 0.05 level (2-tailed).

5. Conclusions

From the descriptive statistics and ANOVA analysis it was concluded that Goh's and Richard's five managerial practices, that are necessary for organizational learning, are used on the Greek banking sector on satisfactory levels. Almost all banks score below high in all 5 constructs, which mean that their policies and procedures are aligned with those concepts that facilitate learning. It is argued that the Greek banking management has realized that learning is an important source of competitive advantage, and has already moved toward 'learning' strategies that they will lead their companies in long-term survival. However two building blocks 'leadership' and 'experimentation' still need some improvements, as evidenced by the relative low scores the Greek banking organizations have.

Moreover, the results show a quite strong adherence of the banking sector companies to procedures of formalized cultures. Bureaucracy was always a feature of financial organizations. Job satisfaction scores were also positive, reflecting the relative positive perceptions of employees.

Between private and public sector the authors can argue that there are not significant differences, in the five building blocks. Different practices probably exist concerning the 'leadership' and 'experimentation' building blocks with private banks being more focused on the two concepts. Formalization was evidenced to be more intense in the public sector while job satisfaction levels were almost the same on both sectors.

Most of the conclusions come from the correlation analysis examining the proposed research variables: organizational learning capability, the two organizational factors of formalization and size and the three performance measures of job satisfaction (non financial), ROA and ROE (financial).

From the results it was found that

- Learning capability is positively related to job satisfaction, while all other relationships are statistically insignificant.
- Learning capability is positively related to job satisfaction and is statistically significant. However when the two control variables, formalization and size are taken into consideration, then this positive relationship becomes stronger. This means that the two control variables have a negative indirect impact in the relationship between learning capability and firm's performance.
- Learning capability is positively related to ROE. However, when the two

control variables, formalization and size are taken into consideration, then, this positive relationship becomes stronger. This also proves the negative indirect effect of the two control variables in the relationship between learning capability and firm's performance.

- Learning capability is negatively related to ROA. However, when the two control variables of organizational factors (formalization and size) are taken into consideration, then, this negative relationship becomes stronger. Again this proves the negative effect of formalization and size on the relationship between learning capability and firm's performance

Consequently it could be argued the following in relation to the stated hypotheses:

Hypothesis H1 is verified, but only partially, concerning the positive and statistically significant relationship between the level of learning capability and job satisfaction, as well as the one of the two financial measures of performance, ROE. On the contrary, the relationship between the level of learning capability and ROA, the other financial measures of performance, becomes negative and statistically significant. It could be argued that the learning capability block definitely affects positively the firm's performance, especially the non-financial measure of job satisfaction but also ROA.

As far as hypothesis H2 is concerned, the researchers could argue that, formalization is negatively related to all performance measures, financial and non-financial, but all are statistically insignificant, except its relation to ROA. On the contrary, size (assets) is positively related to all performance measures, financial and non-financial, but all are statistically insignificant, except its relation to ROE.

Concerning hypothesis H3, it could be argued that both organizational factors, formalization and size, have a negative direct impact on learning capability

Comparing the results of the present research with those of Goh's and Ryan's (2002), the following could be noticed.

Firstly, Goh and Ryan (2002), found a positive relationship of learning capability with job satisfaction but not with ROE and ROA. They argue that 'learning capability may not be linked directly to financial performance; however it can have a positive impact on employee job satisfaction and morale' (Goh and Ryan, 2002: p.1-11). Conversely, the results of the present study show that

learning capability affects both the non-financial measure of job satisfaction and the financial indicator ROA.

Secondly, the results of the present research agree with those of Goh and Ryan (2002), about the size of the examined banks which was found to be negatively related with learning capability.

Thirdly, formalization in Goh's and Ryan's (2002) results had a significant positive relationship to both financial measures, ROA and ROE. However, according to this research, formalization is negatively related to all performance measures, but all are statistically insignificant except its relation to ROA, which is statistically significant.

Managerial implications

The importance of understanding how the concept of the LO can affect the organization becomes more critical and can be mostly appreciated by management when it is seen as one of the most important sources for creating a sustainable competitive advantage. Managers need to understand that they have to cope with a rapidly changing business environment and increasing customer needs. In such an environment, learning is probably the most critical core competence that leads to sustainable advantage, since it is not readily imitable and can help organizations respond to changes when they are really needed.

It can be argued that managers should continuously focus on the five managerial practices that are necessary for organizational learning. By developing strategies and policies that are in line with those practices, they will put the first 'stone' in the construction of a learning organization.

Of course nothing could happen from one day to another especially concerning the implementation of business strategies. These limited research results, show a quite impressive development of all companies belonging to the Greek banking sector toward the building of learning organizations. However, they still have a long way to go and need many more changes to undertake. Theoretically, Greek banks should be very close to becoming learning organizations, since they are already doing well in almost all five strategic components of LO. Of course, as many authors argue in the theoretical part the rhetoric is often different from reality. When businesses try to put theory into practice, they often realize that these two, are quite different 'paths'. The

same issue exists in the complex concept of the LO. Learning is clearly a human factor and when we discuss on this basis, theories can be easily reversed.

Moreover, there is a need for managers to understand the relationship between the concept of the LO and firm's performance. Usually, top managers refuse to follow Human Resource (HR) practices if they do not see a clear performance reason to do so. This often brings problems to HR managers who are usually responsible for learning practices. In our research, there is proof that learning practices can influence a firm's performance both on a financial (ROE) and non-financial (job satisfaction) level.

What it also must be addressed is the fact that this research identified negative relationships of learning capability with size and formalization. Managers need to take these relationships into consideration. In the case of big organizations, knowledge is quite logical to be transferred less rapidly. Meanwhile, in organizations that share strict rules and regulations, the open culture that LOs need to develop is restricted and influenced by this formalized system.

Proposal for future research

Further research in the covered topic is obviously essential due to the complex nature of the concept of the LOs and especially its implementation. There are so many different concepts, developed by so many writers, that, first of all, confirmatory analysis should be done in all those concepts, for better refinement of these concepts.

Secondly, further research has to be done about the verification of the existing theories in different contexts, including firms with different sizes, external environments, and life cycles, in different industries, and different countries. Another important area of research could be the processes of trying to implement the learning behavior in the various firm types. As we have mentioned again, the rhetoric is often different from reality, so researchers should be able to identify those concepts that can actually stand on every day's business world.

Finally, future research of the LOs in the Greek banking sector should require larger samples so that they can have more accurate and efficient results. Probably organizations that include knowledge sharing, in their everyday activities, like universities or business consultants would have higher levels of learning capability.

Learning capability and financial performance should be examined again, due to the fact that the authors obviously drew different results than those of Goh and Ryan (1997). Probably more financial indicators could be used, by building a more complicated model that attempts to link LOs with organizational performance.

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Appendix

TABLE 1
Survey statistics per bank (private-public)

Banks	Private							Total	Public			Total	TOTAL
	A	B	C	D	E	F	G	140	H	I	J	60	200
Returned	9	7	8	10	9	20	15	78	13	19	12	44	122
Usable Surveys	6	5	5	7	6	19	9	57	12	19	10	41	98
Usable Return (%)	66	72	63	70	66	95	60	41%	92	100	83	68%	49%
Return rate (%)	6.1	5.1	5.1	7.1	6.1	19.3	9.1		12.2	19.3	10.2		100

TABLE 2
Summary of factor and reliability analyses' results

Constructs/Variables	K.M.O. Test	Bartlett's Test of Sphericity	Cronbach's Alpha	Number of Factors	% of Variance Explained
1. Clarity of mission and purpose	0.706	0.000	0.7087	1	54.245
2. Leadership	0.783	0.000	0.7923	1	73.460
3. Experimentation / Culture	0.786	0.000	0.7825	1	64.580
4. Transfer of Knowledge	0.703	0.000	0.7032	1	62.680
5. Teamwork and Group problem solving	0.737	0.000	0.7499	1	61.300
1-5. Total learning capability			0.9004		
6. Formalization	0.705	0.000	0.7034	1	59.280
7. Job Satisfaction	0.880	0.000	0.8609	1	69.200

TABLE 3

Mean scores for the overall learning capability (CAPMEA), formalization (XFORM) and job satisfaction (XJOB).

DESCRIPTIVES

	CAPMEA	XFORM	XJOB
	Mean	Mean	Mean
public1	4,5892	2,5476	3,7750
public2	3,3265	2,2406	3,4211
public3	3,6933	2,4571	3,7400
private1	3,9802	3,1880	4,2000
private2	3,3044	2,3810	2,7000
private3	2,7017	3,3810	2,4333
private4	2,6880	3,5143	2,5800
private5	2,9407	2,9429	3,5200
private6	3,5922	3,3492	3,8333
private7	2,9943	3,0204	3,3857
Total	3,5541	2,8207	3,5408

TABLE 4

Pearson Correlation results for learning capability, formalization, and job satisfaction (N=98)

		CAPMEAN	XJOB	XFORM
CAPMEAN	Pearson Correlation	1,000		
	Sig. (2-tailed)	,		
XJOB	Pearson Correlation	,643**	1,000	
	Sig. (2-tailed)	,000	,	
XFORM	Pearson Correlation	-,049	,027	1,000
	Sig. (2-tailed)	,630	,793	,

** Correlation is significant at the 0.01 level (2-tailed).

TABLE 5

Pearson Correlation results learning capability,
formalisation, size, job satisfaction, ROA and ROE.

CORRELATIONS

		LEARN	FORMALA	JOBSAT	ROA	ROE	ASSETS
LEARN	Pearson Correlation	1	-,414**	,734**	-,244	,164	-,327*
	Sig. (2-tailed)		,003	,000	,087	,256	,020
FORMALA	Pearson Correlation	-,414**	1	-,191	-,331*	-,130	-,080
	Sig. (2-tailed)	,003		,185	,019	,370	,580
JOBSAT	Pearson Correlation	,734**	-,191	1	-,290*	,099	,047
	Sig. (2-tailed)	,000	,185		,041	,495	,745
ROA	Pearson Correlation	-,244	-,331*	-,290*	1	,640**	,251
	Sig. (2-tailed)	,087	,019	,041		,000	,079
ROE	Pearson Correlation	,164	-,130	,099	,640**	1	,426**
	Sig. (2-tailed)	,256	,370	,495	,000		,002
ASSETS	Pearson Correlation	-,327*	-,080	,047	,251	,426**	1
	Sig. (2-tailed)	,020	,580	,745	,079	,002	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

TABLE 6

Partial Correlation results between learning capability,
job satisfaction, ROA and ROE.

PARTIAL CORRELATION COEFFICIENTS

Controlling for..	FORMALA ASSETS			
	LEARN	JOBSAT	ROA	ROE
LEARN	1,0000			
JOBSAT	,8130	1,0000		
	P = ,000			
ROA	-,3919	-,4013	1,0000	
	P = ,006	P = ,005		
ROE	,3466	,0688	,6104	1,0000
	P = ,016	P = ,642	P = ,000	

(Coefficient / (D.F.) / 2-tailed Significance)