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An Investigation of the Characteristics of Learning Organizations in Turkish Companies: Scale Validation

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Abstract

In this study it was aimed to identify the characteristics of learning organizations and testing the learning organization scale in Turkish companies. The questionnaire was applied to 48 managers and 426 employees in 11 companies, operating in outsourcing for call center industry. The reliability and validity of the “Organizational Learning” scales developed by Mets and Torokoff (2007), which were based on Senge’s five disciplines, in order to determine the characteristics of the learning organizations was investigated for Turkish study population within the scope of this study. According to study findings, it can be stated that aforementioned scale is a powerful tool that can be used to measure organizational learning with its high reliability and validity, specifically for Turkish respondents. The reliability and validity of the "Organizational Learning" scales developed by Mets and Torokoff (2007), which were based on Senge's five learning disciplines and Mets' three-dimensional learning model, for the Estonian enterprises, were investigated for Turkish study population within the scope of the study and results indicate that this scale is considered valid and reliable for Turkish use.

Keywords: Learning organizations, organizational learning, characteristics of learning organizations, scale validation

1. Introduction

Looking at the recent studies, it is observed that the important role of knowledge, learning and culture in the organizational management has become the main research subject of social sciences (Currah & Wrigley, 2004:17). The reason for this is that the "learning" has become an indispensable element for organizations, which are obliged to adapt the changes around to get over this process (Fard, Rostamy & Taghiloo, 2009:49). Employees are required to devote themselves to learning, for organizations to survive in this changing dynamic environment (Kumpikaite, 2008:25). It is necessary to strengthen and encourage employees, rather than managing employees, in order to operate within today's changing dynamic environment. The aim in such an approach is to try to have creative employees that have intrinsic motivation and willing to learn and improve themselves, as well as capable of combining personal goals with organizational goals (Amidon, 2005:409).

The human resource management approach, which has been defined years ago and have been improved numerous times since then, has brought a new approach and perspective at every stage of its development. Today, the
development of the "learning organization" concept is the utmost point that has been reached by the human resources management (Juceviciene & Leonaviciene, 2007:569). The concepts of the learning organization and organizational learning, and the application of these concepts in the business world were gradually studied by researchers in the last decade (Wang, Yang & McLean, 2007:154, Andrew & Neil, 2004:17). Academics in Turkey devote more attention as well, to the topic of organizational learning in recent years and continue to perform studies in this regard currently (Diken, Öztürk & Coban, 2006, Atak & Atik, 2007, Erigüç & Yağcı, 2007, Kapu & Aybas, 2008, Öneren, 2008, Gizir, 2008).

Although the learning organization concept started to be developed in the 1960s by Chris Argyris's study, it became a contemporary practice that draws attention only after the book called Fifth Discipline published in 1990 by the author Peter Senge (Atak & Atik, 2007:64). The generally accepted "learning organization" concept, which was made popular by Peter Senge in the 1990s, refers to continuous efforts and training of employees on improving their capacities to achieve the intended goals (Jeong, Lee, Kim & Lee, 2007:54).

Organizational learning is a major component in developing the organizational performance and creating a competitive advantage (García-Morales, Ruíz-Moreno & Llorens-Montes, 2007:529). It is essential for businesses to be prepared for continuous training in order to proactively manage and respond to the constant emergencies and they need to adapt this into their internal processes and practices (Currah & Wrigley, 2004:1). In most of the studies, it has been demonstrated that being a learning organization increases the effectiveness of the organization (Jeong, et al., 2007, Tsai, 2008). Also, an increase in financial performance of the organizations that adopt and implement the concept of the learning organization is observed (Davis & Daley, 2008:52).

2. Literature Review

2.1. The Concept of Organizational Learning

Looking at the literature on organizational learning, it is seen that we are faced with a complex structure, which is still debated by researchers (Davis & Daley, 2008:52, Acosta, 2004). Although same considerations have been proposed basically, there are some noticeable differences between approaches of the researchers. It can be said that these differences are grouped into three questions: what are the factors that make an organizational learning organizational, what are the components of organizational learning, and determination of the necessary conditions and processes that create a learning organization (Acosta, 2004). It is evident that these differences are originated from the change in ideas dominant in the organizational learning literature. If the way to address the concept of learning, which forms the basis of this change in ideas and organizational learning, can be well understood, it will be seen that the differences disappear.

Every employee has a learning capacity to a certain extent (Pedder, 2006:180-182). Individuals working in all kinds of organizations have gained their positions after a certain selection process more or less. However, being content with this, in other words considering that the employees recruited in the organization have adequate knowledge is the biggest obstacle in front of the organizational progress. Encouraging employees to access information and use it in a creative process lies at the heart of being a learning organization. And, this can be achieved by taking measures to improve learning capacities of the employees. Encouraging employees to take risks in the learning process will improve their learning capacities (Pedder, 2006:180-182).

When it comes to organizational learning, what is meant by the "learning" concept is the lifelong learning. "Lifelong learning" has become a concept talked about by almost everyone in the developed or developing societies, and today it's the most studied subject in the educational literature. In lifelong learning, individuals add value to society together with themselves, and contribute to its development and modernization (Rogers, 2006:125-127).

Personal commitment to be a lifelong learner is the basis of individual learning in the organizational learning process (Stinson, Pearson & Lucas, 2006:309). In order to create a lasting change in learning behavior of the employees, organizations need to be able to create a change in their attitudes towards learning. The commitment to learning to be created in employees on a personal level will be reflected in the employees' way of doing business and will improve the quality of the work done. Organizational learning focuses on a collective process that affects the
organization. And, the learning theory is about individual learning. Of course, organizational learning is related to the learning theory; because they are the individuals who make up the organization, and individual learning is a natural part of this collective process (Gonzalez, 2001:358).

2.2. Learning Organization and Organizational Learning

There is no common, accepted definition of organizational learning (Wang, Yang & McLean, 2007:155). Organizational learning covers the sharing of the knowledge, values and assumptions of the individuals or groups in an organization (Wang, Yang & McLean, 2007:156). Organizational learning is not the sum of learnings of each employee in a simple way (Liao, 2006:228). It refers to a process that cannot be achieved with individual learning, beyond individual learning.

"Learning organization" and "organizational learning" concepts do not have the same meaning (Jućeviciene & Leonavičienė, 2007:570, Kapu & Aybas, 2008:82, Azmi, 2008:61). Organizations themselves cannot learn, the learning is realized through the employees of the organization. The "organizational learning" will only be realized when an organization creates such an environment for their employees. If individuals come together to analyze and use the information obtained or came from different sources, and interact with each other in order to achieve the objectives of the organization then there is an organizational learning. And, the learning organization refers to a structure that can find what is most effective and efficient for the business by breaking its boundaries limited by the past experiences through learning (Jućeviciene & Leonavičienė, 2007:570).

Learning organization is an organization that access, creates and distributes the performance enhancing information in order to achieve goals (Jućeviciene & Leonavičienė, 2007:570). A learning organization has a structure that improves itself by making it easier for its employees to learn (Basu & Sengupta, 2008:55).

2.3. Components of Learning Organization

It is common to see different elements in different articles on the features or components of a learning organization. However, it is seen that the most widely accepted features in the literature are the five features introduced by Senge. Senge's proposed features of learning organization are listed as follows; personal mastery, mental models, shared vision, team learning and systems thinking.

Personal mastery; Senge states that it is necessary to ensure the commitment of employees to the process of learning at all levels in order to gain a competitive advantage in business (Amidon, 2005:408). Personal mastery refers to the self-discipline of an employer for personal learning and development. A more creative and proactive organization management, dominated with synergy created by combining the personal works in a shared vision not by coercion of senior management, will emerge by encouraging employees to see all aspects of personal existence and objectives (Amidon, 2005:409). Individuals that explore and learn their personal mastery traits is one of the key requirements for organizational learning (Stinson, Pearson & Lucas, 2006:310).

Mental models; a deep and intrinsic understanding is highlighted with this concept that keeps away the habitual movements and ideas, which refers to the mental formations on how the world works (Amidon, 2005:412). Mental models use the approaches of the learning theory (Gonzalez, 2001:358). However, the always regular and consecutive stages, as the stages of the learning process, may not fit the mental models always. Since two different employees observe the same event with different mental models and with attentions to different details, they are likely to evaluate the same event differently. Mental models make us mentally strong against the things that affect us. Being aware of our mental models and trying to update and change these models will enable us to find different methods in doing business (Stinson, Pearson & Lucas, 2006:310).

Shared vision; at its simplest level, a shared vision is the answer to the question, "What do we want to create?". As personal mastery helps to develop a personal vision, shared vision helps to develop an organizational vision (Amidon, 2005:415). Shared vision covers the share of values, objectives and tasks within the organization (Jeong, et al., 2007:55).
Team learning; it is the embodiment of united synergy in organizational learning (Amidon, 2005:416). It refers to the capability of seeing the big picture by going beyond the individual perspectives (Gonzalez, 2001:357). One should go beyond the individual learning and use the synergy of group learning in order to apprehend the big picture in the learning process.

Systems thinking; it is a discipline for seeing the whole, the big picture. System thinking is a framework for seeing interrelationships rather than things, and for seeing patterns of change rather than the static situations (Amidon, 2005:419). Systems thinking helps on understanding the relationship between the elements of organization's current environment and the impact of these elements on the organization, in addition to prevent seeing the performed tasks as separate parts from each other (Desta, 2009:15).

Looking at the other features of learning organizations in the literature; we see organizational culture, top management support, management capability, employee attitudes, business processes and human resources management. Learning organizations lead managers to learn from new experiences constantly, rather than focusing on past experiences (Ayupp & Perumal, 2008:23-24).

2.4. Learning Organization Culture

Learning organization is based on an organizational culture that tries to create a knowledge producing system. Organizational culture consists of the values, beliefs, practices, traditions in organization and the behaviors shaping them; and the organizational learning culture takes place when these elements are merged through learning (Wang, Yang & McLean, 2007:156). Studies conducted on organizational culture and being a learning organization suggest that there is a strong relationship between organizational culture and learning organization (Fard, Rostamy & Taghiloo, 2009). Learning culture is the main factor in the formation of organizational climate or culture, and organizational culture affects both job performance and employee satisfaction (Bucak, 2002:4). Learning culture not only encourages the organization to use information in the processes, but also encourages the use of information to create an innovative and creative process (Liao, 2006:227). The primary features of organizational learning culture can be listed as follows; entrepreneurship and risk taking, facilitative leadership, a decentralized strategic planning, personal development (Ayupp & Perumal, 2008:23). The most important characteristic of the culture of organizational learning is the change within the organization and the procurement of knowledge that leads the organization to innovation and creativity (Fard, Rostamy & Taghiloo, 2009:49). Organization continuously encourages the employees for learning and for developing their potentials (Kumpikaite, 2008:26).

Effective knowledge management and the process of being a learning organization is not a process that can be carried out easily, neither for national companies that operate in different regions and cultures, nor multinational companies, nor the other multinational companies formed by the mergers. Knowledge resources, organizational structure, culture, motivation and the share of power emerges in this process as factors to be considered (Collinson, 1999).

In order to realize an organizational learning, managers need to dedicate themselves to learning first, and need to implement the learning organization culture to provide the desired social change in the organization. The ultimate achievement to be reached for the success of the organizations is the change of the organization as a whole by implementing the learning culture (Cymanow, 2006:31).

There are possible two different ways of developing a learning organization: a conscious and preplanned process or as a natural byproduct of the effective path followed by the organization to reach its goals (Juceviciene & Leonaviciene, 2007:572). The process followed in the first way is often on the creation of learners, creation of team learning and finally the creation of the learning organization (Atak & Atik, 2007:64). The first way is the desired path to follow. A learning organization has a complex structure, it not only covers highly intensive activities based on organizational learning and knowledge, but also covers the continuous and effective development of the employees, albeit a little. Being a learning organization requires to follow a long and onerous path (Juceviciene & Leonaviciene, 2007:569).
3. Methodology

3.1. Empirical Research and Purpose of The Study

The reliability and validity of the "Organizational Learning" scales developed by Mets and Torokoff (2007), which were based on Senge's five learning disciplines and Mets' three-dimensional learning model, in order to determine the common characteristics of the learning organizations through a case study on the level of organizational learning of the Estonian enterprises, were investigated for Turkish study population within the scope of this study.

Prior to the validity and reliability analysis, the original Organizational Learning Scale was translated from English to Turkish by the researcher. Later, this scale has been translated back to English by a different person. Necessary corrections have been made in the Turkish scale by considering the differences between the original and back-translated English versions of the scale.

In this study we aim to identify the characteristics of learning organizations and testing the learning organizations scale in Turkish companies is the second purpose of the study.

3.2. Sample and Data Collection

The questionnaire was applied to 48 managers and 426 employees in 11 businesses, operating in outsourcing call center industry. The questionnaire was applied to managers and employees by the researcher. The questionnaire was distributed to employees by hand and they were asked to fill out the forms during the day. In addition, empty envelopes were given to the participants to enclose the questionnaire, as a way of trust on their anonymity. The data collected through the questionnaire were subjected to factor analysis in order to test the validity and suitability for Turkish businesses of this scale.

3.3. Analyses and Interpretation of Data

Factor Structure: The method of exploratory factor analysis, which is widely used in the scale development studies, as also used by Mets and Torokoff (2007), was used for the verification of the factor structure of the scale (Hair et al., 1995, Jöreskog & Sörbom, 1993).

Since the factor structure was estimated to a large extent by the study of Mets and Torokoff (2007), the principal component matrix obtained after the exploratory factor analysis was subjected to varimax rotation (Hair et al., 1995). The SPSS 15 software was used for explanatory factor analysis and other analyzes in the study.

Reliability: Cronbach's alpha statistic was used for testing the reliability of the scale. In this context, the Cronbach's alpha values were calculated for each factor separately. In addition, the contribution of the questions in the scale both on their own factors and on the whole scale was analyzed by "Cronbach's Alpha if item Deleted" statistic. After analysis, positive contribution of all items to the reliability of the scale and alpha values of 0.70 and above (Hair et al., 1995) were determined as minimum criteria to verify the reliability of the scale.

Validity: The data obtained through exploratory and confirmatory factor analysis (Bagozzi et al., 1991) and reliability values of factors in the scale were used in the assessment of the discriminant validity of the scale. And, the assessment of the structural validity of the scale was based on the conformity of the data to the normal distribution.

4. Data Analyses and Findings

4.1. Factor Structure and Reliability

The organizational learning scale developed by Mets and Torokoff (2007) had two factors for the employees and three factors for the employers. These factors were "Internal Environment, Goals & Development" and "Main
Processes” for the scale for employees, and "Internal Environment & Learning", "Shared Values" and "Main Processes" for the scale for managers.

First, the internal consistency of the scales (reliability) was tested by calculating Cronbach’s Alpha reliability coefficient in the study. The reliability coefficient of the scale for the employees was 0.931, and the reliability coefficient of the scale for the managers was 0.864. Since the general reliability figures of the scales were over 0.80, the scales are considered as highly reliable. In the study, item-total correlation analysis was performed after testing the internal consistency, and it was observed that none of the items in the scale contain insignificant values. The KMO sampling adequacy coefficients and Bartlett’s Sphericity test results, calculated for the applicability of the factor analysis, were at sufficient levels. The KMO value of the scale developed for employees was 0.993 (sig. 0.00), and the KMO value of the scale developed for managers was 0.790 (sig. 0.00). These values show that the variables related to the scale were appropriate for the factor analysis.

Explanatory factor analysis results are given in Table 1. Of the values in the table, it is observed that the Organizational Learning scale prepared for employees was grouped under three factors, different from the findings of Mets and Torokoff (2007).

Table 1 Results of Factor Analysis and Principal Components Analysis, Employee Sample (n = 426)

<table>
<thead>
<tr>
<th>Item</th>
<th>Internal Practices</th>
<th>Shared Values</th>
<th>Main Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any work-related problems are promptly discussed.</td>
<td>.631</td>
<td>.530</td>
<td>.790</td>
</tr>
<tr>
<td>Employees receive regular professional consultancy to help our organization better achieve its goals.</td>
<td>.729</td>
<td>.803</td>
<td></td>
</tr>
<tr>
<td>We constantly analyse and renew the organization's development plan.</td>
<td>.593</td>
<td>.467</td>
<td></td>
</tr>
<tr>
<td>Employees who are creative and generate new ideas are highly appreciated.</td>
<td>.627</td>
<td>.576</td>
<td></td>
</tr>
<tr>
<td>There is a smoothly operating feedback system.</td>
<td>.530</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have discussed and arrived at a common vision of the organization's future in 5 years.</td>
<td>.564</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular performance and development interviews are carried out between managers and employees.</td>
<td>.524</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff are trained and developed systematically.</td>
<td>.594</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have a system of regular performance appraisal.</td>
<td>.627</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We regularly have common seminars on our further development.</td>
<td>.701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff value high quality performance.</td>
<td>.612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We place a high value on employees' dedication to work.</td>
<td>.534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff take initiative when fulfilling the organization's objectives.</td>
<td>.727</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff is innovative/ innovation-minded.</td>
<td>.686</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All staff know and share common values.</td>
<td>.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The management of our organization plans changes and implements them systematically.</td>
<td>.467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I take note of customer feedback.</td>
<td>.679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand the common core of my own personal and my organization's objectives and follow them in my work.</td>
<td>.770</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We constantly analyze and renew the organization's development plan.</td>
<td>.612</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Explained Variance</td>
<td>%53,758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s Alpha</td>
<td>.908</td>
<td>.803</td>
<td>.853</td>
</tr>
</tbody>
</table>

The scale in the original article, which was studied in this research, includes 27 items in total. As a result of the factor analysis performed after the Turkish adaptation of the scale, 9 items were removed from the scale due to their lower factor loadings. Looking at the factor loadings of the remaining items in the scale, it was observed that the "Main Processes" factor maintains its integrity, however, the "Internal Environment, Goals & Development" factor
was divided into two separate factors. In this context, the scale was conceptualized as "Internal Practices", "Shared Values" and "Main Processes".

Looking at the eigenvalues and Total Variance values, it is observed that the first factor explains about 24% of the total variance. This ratio was 16.8% for the second factor and 13% for the third factor. When we look at the Cronbach's alpha values of the factors, it is seen that the reliability values are above 0.7 for all three factors (0.908 for the first factor, 0.803 for the second factor, and 0.853 for the third factor).

In this context, it can be stated that the Organizational Learning scale developed for the employees gives reliable results also for Turkish study population.

And, the factor analysis results for the manager scale are presented in Table 2. Of the values in the table, it is observed that the Organizational Learning scale prepared for managers was grouped under three factors, consistent with the findings of Mets and Torokoff (2007).

The scale in the original article, which was studied in this research, includes 20 items in total. As a result of the factor analysis performed after the Turkish adaptation of the scale, 7 items were removed from the scale due to their lower factor loadings. Looking at the factor loadings of the remaining items in the scale, it was observed that all factors maintain their integrities.

When we examine the items remained after factor analysis in terms of the dimensions, we see that the factor called as "Internal Environment & Learning" in the original scale was renamed to "Internal Practices", and the other two factors was called as "Shared Values" and "Main Processes", as in the original scale.

Table 2. Results of Factors Analysis and Principal Components Analysis, Manager Sample (n = 48)

<table>
<thead>
<tr>
<th>Item</th>
<th>Internal Practices</th>
<th>Shared Values</th>
<th>Main Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>We regularly have common seminars on our further development.</td>
<td>,838</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our organization uses survey results for the preparation of its development plan.</td>
<td>,787</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have a self-assessment system.</td>
<td></td>
<td>,772</td>
<td></td>
</tr>
<tr>
<td>All staff can take part in setting the goals for the organization/structural unit.</td>
<td>,771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff are trained and developed systematically.</td>
<td></td>
<td>,741</td>
<td></td>
</tr>
<tr>
<td>Our staff are always polite towards each other.</td>
<td></td>
<td></td>
<td>,751</td>
</tr>
<tr>
<td>All employees share a common understanding of work quality.</td>
<td>,860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All staff know and share common values.</td>
<td>,752</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff take criticism adequately, they analyze and admit their mistakes.</td>
<td>,652</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our staff value high-quality performance.</td>
<td>,622</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not put up with conflicts in my work and I attempt to resolve them.</td>
<td>,811</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I take note of customer feedback.</td>
<td></td>
<td>,783</td>
<td></td>
</tr>
<tr>
<td>We view customers as cooperation partners.</td>
<td></td>
<td></td>
<td>,734</td>
</tr>
</tbody>
</table>

Looking at the eigenvalues and Total Variance values, it is observed that the first factor explains about 25% of the total variance. This ratio was 23% for the second factor and 16% for the third factor. When we look at the Cronbach's alpha values of the factors, it is seen that the reliability values are above 0.7 for all three factors (0.857 for the first factor, 0.805 for the second factor, and 0.753 for the third factor). It can be said that the distinct factor structure and high reliability of the scale are adequate to ensure discriminant validity requirement (Bagozzi et al., 1991). In this
context, it can be stated that the Organizational Learning scale developed for the managers gives reliable results also for Turkish study population.

5. Conclusion

The reliability and validity of the "Organizational Learning" scales developed by Mets and Torokoff (2007), which were based on Senge's five learning disciplines and Mets' three-dimensional learning model, for the Estonian enterprises, were investigated for Turkish study population within the scope of the study. In this study, the Turkish validity and reliability of the Organizational Learning scales developed by Mets and Torokoff (2007), based Senge's five learning disciplines and Mets' three-dimensional learning model, were investigated. For this, it was first determined that both of the scales applied to employees and managers have 3 factors. It can be said that the distinct factor structure and high reliability of the scale are adequate to ensure discriminant validity requirement (Bagozzi et al., 1991).

And, when we look at the study findings as a whole, it can be stated that the scale is a powerful tool that can be used to measure organizational learning with its high reliability and validity, and in this context it will have a contribution to the future studies in this regard.

References


