A Structural Equation Model of Organizational Learning Based on Social Capital in Universities

1Fattah Nazem, 2Mona Omidi, 3Omalbanine Sadeghi, 4Allahverdi Hosseinzaideh

1,2,3,4Department of Education, College of Education and Counselling, Roudehen Branch, Islamic Azad University, Roudehen, Iran.

The purpose of the present study was to provide a structural model of organizational learning based on social capital in universities. The population of the research included all employees of Islamic Azad University (Roudehen, Damavand, Pardis, and Bomehen branches and educational centers) in Iran. 359 employees were selected using stratified and cluster random sampling method. The research instruments were as follow: Watkins and Marsick’s [55] organizational learning questionnaire which consisted of 43 items with three underlying constructs of individual level, group level, and organizational level and Cronbach Alpha of 0.97 and Abili and Abilis’ [1] organizational capital questionnaire which consisted of 24 items with three underlying constructs of cognitive dimension, relational dimension, and structural dimension with Cronbach Alpha of 0.94. The results of path analysis using LISREL software indicated that dimensions of social capital had a direct effect on organizational learning with the indices of 0.95. The model also showed that relations with social capital had the highest direct effect on the organizational level in organizational learning. It was also concluded that the proposed model showed full fit.

INTRODUCTION

In a climate of accelerating change, organizations can not flourish without nurturing the seeds of learning. Established as a wellspring of value-producing knowledge, organizational learning is budding block to innovative, quality, and profitable products and services ([3]; [7]; and [47]). Organizational learning means the process of improving actions through better knowledge and understanding. [22]. King (2002) asserted that organizational learning is important to the success of quality-focused organizations since only through learning can organizations capture and retain the knowledge necessary to continually refine and improve business processes responsible for product and service quality. One of the obstacles in institutionalizing organizational learning is believed to be the lack of effective leadership [27]; [5]; and [9]. Organizations ought to take into account the way leaders educate the staffs regarding the role of organizational learning. Leaders should create an atmosphere in which organizational learning is institutionalized in the organization. This can, finally, lead knowledge and information systems, which are of determining factors in any organization, into organizational learning under the leaders’ support. Senge [48]; identifies the five disciplines associated with the organizational learning to be personal mastery, mental models, systems thinking, team learning, and building a shared vision for the organization. Organizational learning culture refers to “an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights” [23]. Supervisor developmental feedback provides valuable information to employees and enables the employees to learn, develop, and make improvements on the job [58]; Scholars holding the social interaction view argue that organizational learning emerge amid the social interactions of employees. Senge [58] emphasized the interaction among employees on the base of personal mastery in his concept of organizational learning. Cook and Yanow [15] suggested that organizational learning is a formal or informal collective process of exploration and practice, and it is a cultural phenomenon. They emphasized that organizational learning is a phenomenon of collective learning. Organizational learning is related to change, innovation, technology and product development, and organization profit, continual progress in these areas enables the organization to reinvent itself and avoid stagnation [3]; [24]; [20]; [39]. Crossan et al [16], proposed an organizational learning framework with...
Social capital is necessary for sustained learning and knowledge creation within organizations[17]. Social capital is a jointly owned set of resources that accrue to an individual or group by virtue of their social connections, and can be significant in knowledge acquisition and transfer between network members [26]. Macinko and Starfield[35], reviewed social capital at four levels: socio-cultural, neighbourhood, behaviour and attitudes. The two last mentioned are composed of individual-level attributes, such as participation in social networks, commitment to cooperation and interpersonal trust. The role of trust in social capital can be considered crucial, because it plays the main role in establishing social networks, and provides teamwork activities with required background. People generally have the ability to secure benefits through memberships in networks and other social structures [43]. Social capital allows individuals to gain and make use of various resources (information, services, money, and ideas) and to anticipate reciprocal and trustful relationships emerging in networks of association. Social capital can therefore be defined as an attribute of individuals, but only by virtue of their participation in a group. The extent to which people participate in social, civic and other voluntary activities constitutes an essential part of their individual-level social capital [21]; [35]; [32]; and [42]. Social capital has three interrelated dimensions: structural, cognitive, and relational [37].

Cognitive dimension: The cognitive dimension of social capital refers to attributes like a mutual belief or shared paradigm that promotes a common understanding of collective goals and the proper ways of acting in the social environment [50]. The social capital's cognitive dimension may enable knowledge sharing in the sense that stories, shared language, customs and traditions can bridge the tacit-explicit division as well as division in terms of; for example, old-timers-newcomers [25]. The cognitive dimension refers to those resources that provide shared representations, interpretations, and systems of meaning among parties. This includes shared language and codes as well as shared narratives, which increase the mutual understanding among individuals and help members to communicate more effectively [11].

1. Structural dimension: The structural dimension of social capital focuses mainly on the density of networks and on bridging structural holes [10]; [46]; and [53]). Structural social capital facilitates information sharing, and collective action and decision making through established roles, social networks and other social structures supplemented by rules, procedures and precedents [51].

2. Relational dimension: The relational aspect of social capital consists of having a strong identification with the collective [31], having a sense of reciprocity or obligation to contribute to the collective [14], and abiding by the norms of the collective [44], which are part of the collective’s climate. Social capital is an additional mechanism for enhancing knowledge transfer both within and between organizations [57]; [56]; [37]; [26] and [28].

Washington (2008) found that organizational social capital would strengthen the positive relationship between access to business knowledge and organizational learning. On the other hand, these data indicated that organizational social capital weakened the positive impact of access to organizing knowledge on organizational learning. Adams’ [2] data obtained from 591 subjects in two separate organizations provided support for the overall model indicating a relationship between social capital and mindful use, as well as a relationship between mindful use and organizational learning.

The research purpose is to construct a structural model to assess organizational learning Universities based on the social capital.

**MATERIALS AND METHODS**

**Research questions:**
1. What is the structural model of the organizational learning based on social capital in universities?
2. Which variables have the highest effectiveness on organizational learning?
3. How predictive is social capital for promoting organizational learning?
4. How much is the goodness of fit in this study?
Method of the study:
The research methods which were used in this study are: library research to access the theoretical framework and the related literature; and the survey method to collect, classify, describe, and analyze the data.

The population of the research included all employees of Islamic Azad University (Roudehen, Damavand, Pardis, and Bonehen branches and educational centers) in Iran. In order to estimate the least volume of sample, \[ n = \frac{z^2 \sigma^2}{d^2} \] formula was used. Regarding the minimum sample required for the staff’s group which was estimated at 559 individuals, the same number of questionnaires of social capital and organizational learning were administered to the staff members, who were selected using stratified and cluster random sampling method. The research instruments were as follows: Watkins and Marsick’s [55], organizational learning questionnaire which consisted of 43 items with three underlying constructs of individual level, group level, and organizational level and Cronbach’s Alpha of 0.97. The items embedded in the questionnaire were of three types. The first type of items consisted of those items which tested the subjects’ organizational learning at the individual level. The second and the third types of items consisted of items which investigated the subjects’ organizational learning at the team and organizational levels respectively. Abili and Abilis’ [1] social capital questionnaire which consisted of 24 items with three underlying constructs of cognitive dimension, relational dimension, and structural dimension with Cronbach’s Alpha of 0.94. The details of each dimension have been mentioned in the literature review. In sum, cognitive dimension refers to the subjects’ belief and shred patterns among the employees. The structural dimension includes the items which refer to the existence and power of networks. And, relational dimension includes the items which examine the existence of networks which contribute to the strength of the organization. The results of the study were calculated through path analysis using LISREL software.

Results:
Findings of the study:
The data collected from the administration of the instruments were analyzed. These data included the different indexes of central tendency, variability and the distribution of staff’s groups, the staff members’ scores obtained from social capital and organizational learning questionnaires and their related components. The distribution of the staff members’ scores in the given variables had tendency toward normality.

![Path analysis model for components of social capital and organizational learning](image)

**Fig. 1:** Path analysis model for components of social capital and organizational learning. As shown in Figure 1, the Lambda rate of external latent variable of social capital components was 0.92 for relational dimension, 0.91 for cognitive dimension, and 0.90 for structural dimension, it’s worth mentioning that their accumulation form the social capital variable with the effectiveness rate of 0.81. It means that 81% of the variation in the dependant variable of organizational learning is explained by a collection of these indices. The variable of relation dimension indicates the highest amount of internal consistency in the external latent variable.

The Lambda rate of internal latent variable of organizational learning components was 0.86 for Individual level, 0.85 for group level, 0.91 for organizational level. Their accumulation form the organizational learning variable. The variable of organizational level indicate the highest amount of internal consistency in the internal
latent variable. Since the model’s goodness of fit index is 0.95, it can be stated that it has an acceptable fit. The calculated index indicates the direct effect of social capital components on organizational learning. Moreover, the model shows that the highest direct effect is related to relation dimension, the component of social capital, on organizational learning in organizational level. The following table presents the indices related to the model’s fit:

<table>
<thead>
<tr>
<th>Index</th>
<th>Rate</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewis-Tucker (Non-normed fit index)</td>
<td>0.93</td>
<td>High fit (more than 0.90)</td>
</tr>
<tr>
<td>Bentler-Bonett’s (Normed fit index)</td>
<td>0.92</td>
<td>High fit (more than 0.90)</td>
</tr>
<tr>
<td>Hoelter</td>
<td>0.74</td>
<td>High fit (more than 0.70)</td>
</tr>
<tr>
<td>Root Mean Square Error (RMSEA)</td>
<td>0.032</td>
<td>High fit (less than 0.05)</td>
</tr>
<tr>
<td>GFI</td>
<td>0.95</td>
<td>High fit (more than 0.90)</td>
</tr>
</tbody>
</table>

The five goodness of fit indices presented model’s fit and empirical data. Therefore, desirability adaptation is provided for the designed model and empirical data and can approve it as an appropriate model for the organizational learning.

Discussion and Conclusions:

Discussion:

The results of path analysis indicated that since model’s goodness of fit index is 0.95, it can be stated that it has an acceptable fit. The calculated index shows the direct effect of emotional intelligence components (0.17) on organizational learning. The results of this study are in line with the research by Washington [52], and Adams [2]. In his model, Adams [2] refers to the role of social capital which leads to organizational learning. Furthermore, in his study, Washington [52] found the relationship between social capital and commercial knowledge as well as organizational learning.

Drucker [18] describes the twenty-first century as the “age of social transformation” and Baker [6] argues that success in business is achieved through developing and leveraging social capital. Social capital is “network ties of goodwill, mutual support, shared language, shared norms, social trust, and a sense of mutual obligation that people can derive value from”.

It is about relationships and connections with various communities [45]. The central idea behind social capital theory is that social relationships among people are valuable assets that can foster social affairs and access to knowledge (Nahapiet & Ghoshal, 1998). Researchers examined the influence of social capital on human capital development [12]; [34], and on the economic performance of firms [6].

In the past few years, there has been an increased interest in organizational learning since it has been suggested to have great potential for influencing competitive advantage, organizational control and intelligence, exploitation of knowledge and technology, and other critical organizational outcomes [49]. Since organizational learning can increase a firm’s capacity to take effective action [30] and can mobilize tacit knowledge, it can lead to greater firm effectiveness [8].

Close attention to organizational learning is an absolute necessity within all organizations particularly higher education institutions. Many authors agreed that “... successful organizations that forge ahead in a rapidly changing business environment will do so through creating and sharing new knowledge” [3]; [48]; [41]. The result of the study conducted by Beard [9], showed that the indices of organizational learning included identities, thoughts, common ideas, group working and group learning, sharing information and systematic thought, having leader, staff’s skills, and competition. Miller [36], also found out that the successful results of organizational learning are: successful financial and business performance, self-learning at individual and team/group levels, and group learning. Moreover, Duffy [19], indicated that the key to significance and high quality in fostering values, nurturing personal qualifications, and caring social values in strengthening team/group leadership lies in following organizational learning. The results of the studies conducted by Nordtvedt [40], and Lin [33], also clarified that using organizational learning and effective teaching in organizations would enhance the income, market share, profitability, and company’s performance and played a leading role in the increase of innovation rate.

Regarding the findings of the present study, in order to strengthen the organizational learning in Islamic Azad University, the followings are suggested:

- Experts should have common objectives and values.
- Experts should have access to various resources in order to accomplish their vocational duties.
- Experts should be motivated to accomplish the goals and missions of the organization.
- Experts should look at each other’s work and criticize it.
- When something goes wrong, experts should discuss in order to solve it.
- Experts should agree on what the important issue is for the organization.
- Experts should help each other, and share the desired information voluntarily.
• Experts should fully grasp the goals and mission of the organization.

In addition, taking into account that the relational dimension has the highest effect on strengthening the organizational learning, the followings are suggested:
• Experts should trust each other.
• Experts should consider themselves as a member of a big family within the organization.
• Team work should be encouraged.
• Experts should respect each other’s feeling.
• Experts should be honest with one another.
• Experts should have commitment to the goals of the organization.

Conclusions:
In conclusion, the newly-proposed results in this research can be effectively employed to enhance the organizational learning in similar organizations.

Acknowledgements:
This paper is extracted from a research project sponsored by the research department of the Islamic Azad University, Roudehen Branch to whom I owe a debt of gratitude.

REFERENCES