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STRUCTURAL MODEL OF SOCIAL CAPITAL OF ISLAMIC AZAD UNIVERSITY BASED ON ORGANIZATIONAL INTELLIGENCE AND PRESENTING THE PRACTICAL SOLUTIONS OF IMPROVING ORGANIZATIONAL SOCIAL CAPITAL

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ABSTRACT

Social capital is one of the important organizational assets helping the organizations in knowledge creation and sharing and creates a sustainable organizational advantage compared to other organizations. This study is aimed to present a structural model of social capital of Islamic Azad University based on organizational intelligence of employees. The study population is including all employees of Azad University of Fars province as 1810 people. 409 people are selected by Cochran's formula. The study measure is 24-item questionnaire of Nahapiet & Ghoshal and 49-item questionnaire of Albrecht and the validity and reliability are supported statistically. The statistical results show that there is a positive and significant association between one by one of organizational intelligence and social capital components. Among the components of organizational intelligence, shared fate, alignment and congruence and performance pressure can predict social capital. Social capital model is presented based on organizational intelligence. Finally, practical solutions are presented to improve social capital in organization by the aid of organizational intelligence.

Keywords: *Social Capital - Organizational intelligence - Islamic Azad University*

INTRODUCTION

Social capital beside economic and human capital is recognized as an effective variable on development trend. According to the view of most of scientists, social capital refers to the links and relations among the members of a network as an available source and by trust and norms can fulfill the members' goals (Alvani and Shirvani, 2005).

According to traditional view of management, economic, physical and human capital development played important role but now, we need more social capital for development compared to economic, physical and human capital. Social capital is considered as an important element to achieve development. Managers and those creating social capital in organization can facilitate the happiness, job and organization way for themselves (Salehi and Mehralizade, 2005).

On the other hand, organizational intelligence in the current complex organizations is the result of two active human intelligence and machine intellectual intelligence and the organizations managers have no alternative except using these two intelligent mechanisms for dynamics and increasing efficiency of their organization. Organizational intelligence as a process provides theoretical analysis of an organization with a set of minor processes and organizational intelligence as a product provides a combinational policy and some guidance to design information system for organization.

These two components are not separated and act as two dependent factors with each other in organization (Jamalzade, 2009).

As organizational intelligence is the capacity of an enterprise to mobilize all of its available brain power, and to focus that brain power on achieving its mission and this issue due to its impact on the type of social relations in organization caused that this study aims to evaluate the relationship between organizational intelligence and social capital. A model is presented for better understanding of these relations and finally the solutions of improving social capital of organization by the aid of organizational intelligence are presented.

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Study Purposes

- 1- Determining the relationship between organizational intelligence and social capital
- 2- Predicting social capital of Islamic Azad University based on organizational intelligence components
- 3- Presenting a structural model of Islamic Azad University of Fars province based on organizational intelligence
- 4- Presenting practical solutions to improve social capital by the aid of organizational intelligence

Theoretical Definitions of Variables

Social Capital

Nahapiet and Ghoshal (1998) defined social capital as the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit. They believe that social capital is one of the important organizational assets and capabilities helping the organizations in knowledge sharing and creation and creates sustainable advantage for them compared to other organizations (Nahapiet and Ghoshal, 1998).

Social Capital Dimensions

- a. Cognitive dimension of social capital refers to those resources providing shared representations, interpretations, and systems of meaning among parties. The most important dimensions are shared language and codes and shared narratives.
- b. Structural dimension: It refers to the overall pattern of connections between people, to whom and how you have access; the most important dimensions are network relations between people, network configuration and appropriate organization.
- c. Relational dimension: Social capital describes a type of personal relations people have with each other due to their interaction history. The most important aspects of this social capital are including trust, norms, obligations and expectations, and identity (Nahapiet and Ghoshal, 1998).

Organizational Intelligence

According to Albrecht, organizational intelligence is the capacity of an enterprise to mobilize all of its available brain power, and to focus that brain power on achieving its mission. Organizational intelligence is a combination of all the necessary skills in organization with alterability, the speed in action and reaction and flexibility and innovation in the organization (Karl, 2002).

Components of Organizational Intelligence

- a. Strategic vision: In this dimension, the first theory, basic principles, type of organizing and initial definitions of an organization are considered. In other words, this dimension is about creation, inference and defining the goal of an organization. Strategic vision is the future an organization follows it (Hadkinson, 2002).
- b. Shared fate: When all people in organization are involved in work, they know what is the mission of organization, by having shared goal, one by one of people can perceive the organization success as destiny and they can act to achieve vision as synergy (Maclin, 2006).
- c. Appetite for change: The changes are the challenges of new business and are exciting for people and it is an opportunity for starting new work and activity. In such environments, people need recreation of business models as a good and exciting challenge providing an opportunity for success. The appetite for change should be consistent with the required changes to fulfill strategic vision (Roose, 2006).
- d. Alignment and congruence: People and teams should organize themselves to fulfill organizational mission and divide the responsibilities and jobs and make a series of rules to cope up with each other with environment (Maghali and Azizi, 2008).
- e. Knowledge deployment: IT along knowledge management is using knowledge with creation and culture of using valuable intellectual and information resources.
- f. Performance pressure: Being involved is not adequate for managers and in an intelligent organization, each of the executives should be in their executive position and promote executive leverage and support it. This has the highest effect when it is an effective set of mutual expectations and operational obligation for shared success (Albrecht, 2002).

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g. Heart: The effort and boldness to act beyond the standards and behaviors based on organizational norms (Karl, 2002).

Review of Literature

Nahapit and Ghoshal (1998) in their study “Social Capital, Intellectual Capital and the Organizational Advantage” introduced a model based on structural, relational and cognitive for social capital and established a theoretical relation between social capitals dimensions, creating intellectual capital and executive level performance of organization.

Landry and Lamari (1999) in their study achieved important results regarding the relation between social capital and knowledge management but in the mentioned study, knowledge management generally and without separating it, investigated its various dimensions.

Helena *et al.*, (2001) in their study “Social capital, knowledge acquisition, and knowledge exploitation” investigated the effects of social capital in key customer relationships on knowledge acquisition and knowledge exploitation. They found that social interaction and network ties dimensions of social capital are indeed associated with greater knowledge acquisition-one of the knowledge management processes. In other words, social capital via increasing achieving knowledge external resources, knowledge absorption and exchange and increasing efficiency of knowledge transfer increase knowledge creation and acquisition in organization.

Adler and Krwon (2003) in their study showed that there is a significant relationship between social capital and knowledge transfer in organization.

Tymon and Stumpf (2003) in their study examined the relationship between social capital and knowledge management as whole and stated the result as achieving high performance by organization. Hoffman *et al.*, (2005) in another study showed the relationship between Social capital, knowledge management, and sustained superior performance by organization. Their results showed that organizations with high levels of social capital have more knowledge-management capabilities than organizations with low levels of social capital. Thus, social capital by creating communication and information channels and social networks in organization develop interpersonal communication and these interactions and communication can facilitate creation, sharing and knowledge deployment among the organization members. In other words, social capital by managing knowledge and intellectual assets in organization can facilitate the conditions of using knowledge management processes in organization.

Hi-Hong (2006) and Stone (2002) in their study evaluated the role of trust in knowledge creation in a virtual organization. They know main conditions to produce social capital via three entities: *opportunity*, *motivation*, and *capability* and believe that trust affects knowledge creation via opportunity, motivation and capability of knowledge combination in a virtual organization and some entities such as informal network structure, shared norms and values, and mutual trust also influence organizational knowledge creation. Gumas (2010) in his study dealt with the impact of communication on knowledge sharing in organizations and evaluated the relationship between knowledge sharing and communication dimensions, the relations between satisfaction of communication, communicative styles and knowledge collection. The results showed that knowledge sharing is completely associated to satisfaction of communication and communication method and knowledge presentation is mostly associated to communication method and knowledge collection is mostly associated to satisfaction of communication. Chow and Chan (2013) in the study examined the relationship between social capital and knowledge sharing in various firms and social capital dimensions include social network, social trust and sharing goals. But knowledge management concept is considered general. The results of the study show that social network and sharing goals have significant relation with organizational knowledge sharing but social trust has not direct impact on organizational knowledge sharing.

MATERIALS AND METHODS

Study method: This study is correlation.

Study population: It is including all employees of Islamic Azad Universities of Fars province in Iran working in 2013, 2014 in these universities as formally.

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Determining sampling size: By Cochran’s formula sample size and estimation of theoretical mean and standard deviation of social capital, the sample is 317.

Sampling method: By random cluster sampling method, the sampling is performed and finally 409 questionnaires are completed and analyzed.

Study Measure

1- Social capital questionnaire: The questionnaire of Nahapit and Ghoshal (1998) is applied. This questionnaire has 24 questions and it is scored based on strongly agree to strongly disagree as 1 to 5. To evaluate reliability, Cronbach’s alpha reliability coefficient is applied and the coefficient is 0.941. The construct validity of questionnaire of social capital by evaluation of questionnaire components correlation with total score of test is investigated and correlation coefficient of one by one of components with total score is above 0.9 and it shows that questionnaire has good construct validity (internal consistency).

2- Organizational intelligence questionnaire: The questionnaire of Albrecht (2003) is applied and this is composed of 49 questions and the questions are scored as strongly agree to strongly disagree as 1 to 5. To evaluate reliability, Cronbach’s alpha reliability coefficient is applied and the coefficient is 0.977. The construct validity of questionnaire of Organizational intelligence by evaluation of questionnaire components correlation with total score of test is investigated and correlation coefficient of one by one of components with total score is above 0.9 and it shows that questionnaire has good construct validity (internal consistency).

RESULTS AND DISCUSSION

Results

First purpose of study: The evaluation of the relationship between organizational intelligence and social capital by Pearson correlation coefficient

| Variables | Pearson correlation coefficient | P values |
|-----------------------------|---------------------------------|----------|
| Organizational intelligence | 0.714 | P<0.001 |
| Strategic vision | 0.657 | P<0.001 |
| Shared fate | 0.696 | P<0.001 |
| Appetite for change | 0.614 | P<0.001 |
| Heart | 0.694 | P<0.001 |
| Alignment and congruence | 0.646 | P<0.001 |
| Knowledge deployment | 0.67 | P<0.001 |
| Performance pressure | 0.693 | P<0.001 |

| Prediction variables | Beta | t | P values for T-test | F | P value for f | R | R ² |
|--------------------------|-------|------|---------------------|-------|---------------|-------|----------------|
| Strategic vision | 0.14 | 1.54 | 0.124 | | | | |
| Strategic vision | 0.25 | 2.6 | 0.009 | | | | |
| Appetite for change | -0.07 | -0.9 | 0.364 | | | | |
| Alignment and congruence | 0.25 | 3.19 | 0.001 | 64.92 | P<0.001 | 0.729 | 0.531 |
| Knowledge deployment | -0.06 | -0.6 | 0.537 | | | | |
| Heart | 0.037 | 0.35 | 0.722 | | | | |
| Performance pressure | 0.21 | 2.27 | 0.023 | | | | |

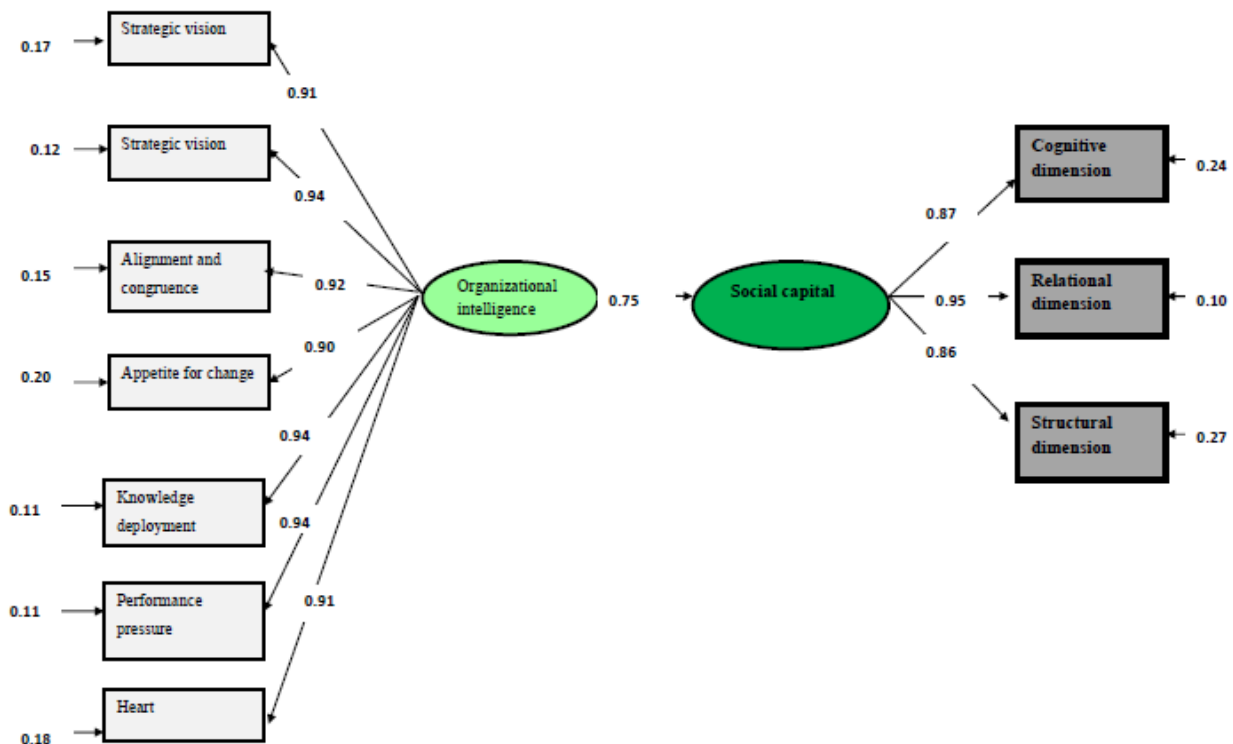
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Interpretation: Based on correlation coefficients and significance levels, there is a positive and significant relation between organizational intelligence and all components of organizational intelligence with social capital.

Second purpose of study: Prediction of social capital of Islamic Azad University based on components of organizational intelligence

Interpretation: F value in this regression analysis is significant ($P < 0.001$). Thus, regression equation is performed and social capital is predicted based on components of organizational intelligence components. Also, the results show that shared fate can predict social capital significantly and positively ($\beta = 0.25$, $t = 2.6$ and $P = 0.009$), alignment and congruence can predict social capital significantly and positively ($\beta = 0.25$, $t = 3.9$, $P = 0.001$) and performance pressure can predict social capital positively and significantly ($\beta = 0.21$, $t = 2.27$, $P < 0.023$). Based on coefficient of determination (R^2), these three organizational components can predict 53.1% of social capital variance at the same time.

Third purpose of study: Presenting structural model of social capital of Islamic Azad University of Fars province based on organizational intelligence.



The above figure shows the model of relationship of organizational intelligence including “strategic vision” by 7 questions, “shared fate” by 7 questions, x3 “appetite for change” by 7 questions, “alignment and congruence” by 7 questions, “knowledge deployment” by 7 questions, x3 “performance pressure” by 7 questions, “heart” by 7 questions as independent variable with social capital dimensions including “cognitive dimension” by 6 questions, “relational dimension” by 11 questions, “structural dimension” by 7 questions as dependent variable are not different from real model of data.

Lambda value (effect or loading) of external latent variable of organizational intelligence dimensions including “strategic vision”, 0.91 “shared fate”, 0.94, x3 “appetite for change” 0.92 including “alignment and congruence” 0.90, “knowledge deployment”, 0.94, x3 “performance pressure”, 0.94, “heart” 0.91 and by adding these indices, organizational learning variable is formed it has 0.75 impact coefficient on

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social capital variable. In other words, 75% of dependent variable changes of social capital are covered by a set of these indices and the rest of predictions are predicted by other variables. The variables of knowledge deployment, shared fate and performance pressure show the highest value and alignment and congruence shows the least internal consistency in terms of external latent variable.

Lambda of internal latent variable of social capital dimensions includes “cognitive dimension”, 0.87, “relational dimension”, 0.95 and “structural dimension” 0.86 and by adding these indices, social capital variable is formed. The relational capital variable indicates the highest and structural capital variable the lowest internal consistency in internal latent variable.

As “goodness of fit index” of this model is 0.92, it can be said this model has acceptable fitness. The obtained coefficient indicates the direct effect of organizational intelligence variable on social capital (dependent variable). Also, the above model indicates that the highest direct impact is considered as direct impact of knowledge deployment, shared fate and performance pressure in terms of organizational intelligence on relational capital variable in social capital dimension.

(Social capital) $Y = (0.91) \text{ strategic vision} + (0.94) \text{ shared fate} + (0.92) \text{ appetite for change} + \text{alignment and congruence} + (0.94) \text{ knowledge deployment} + (0.94) \text{ performance pressure} + (0.91) \text{ heart}$
 (0.90)

Table 4-10: The indices of fitness of social capital model based on organizational intelligence

| Interpretation | Value | Index |
|---|-------|--|
| (Criterion above 0.90) High fitness | 0.91 | (Non-normed fit index) Tucker-Lewis |
| (Criterion above 0.90) High fitness | 0.90 | Bentler-Bonett's (Non-normed fit index) |
| (Criterion above 0.70) High fitness | 0.72 | Holter |
| (Criterion less or equal 0.05) High fitness | 0.044 | Root Mean Square Error of Approximation (RMSE) |
| (Criterion above 0.90) High fitness | 0.92 | GFI |

By emphasis on five goodness of fit indices, we can focus on the fitness of the model on one hand and empirical data on the other hand. Thus, there is a good consistency between the models or structured model with empirical data and good fitness indicates structural equations modeling with emphasis on the relationship between organizational intelligence and social capital (dependent variable).

The final conclusion of the present study is as the proposed model of the researcher has good fitness as the non-norm fitness index Tucker-Lewis (0.91) and Bentler-Bonett's normed fit index (0.91) is above 0.90. In addition Holter index (0.72) is above 0.70 and it shows good fitness. Also, RMSE (0.044) is less than 0.05 and it indicates fitness of researcher model.

Discussion

Solutions of Improving Social Capital in Organization by the Aid of Organizational Intelligence

- Based on the result of the study that social capital and organizational intelligence have significant and positive relation, by increasing organizational intelligence in organization, we can improve social capital in organization. Thus, by defining the goals in organization (strategic attitude), participation of employees in plans (shared fate), creating situation in organization for change and creativity in organization (appetite for change), creating excitation in work (heart), using knowledge of employees, evaluation of performance of employees by themselves and self-control of employees (performance pressure), solving the different views, dividing fair duties and solving the problems of employees (alignment and congruence), we can increase organizational intelligence and social capital at the same time in organization.

- The management should attempt to consider the employees as effective member in organization, the managers can participate the employees in plans, programs, execution and evaluation to recognize their organizational mission and have empathy and unity to the organizational goals and they consider organizational situation as their situation and “shared fate” as one of the components of organizational intelligence is increased and by this method, empathy and trust are increased among the employees and organizational intelligence and social capital are increased in organization.

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- Management can attempt as organization members can adhere to their obligations to each other.
- Management can create collaboration in organization via doing the works as in group and team and develop it.

Managers can support the organization members from emotional and social aspects that organization members can combine information, knowledge and other resources to do the duties.

- The organization managers can create and improve the skill of mutual acceptance among the organization members.
- Managers can promote informal norms in organization. As in informal organizations, people can interact and trust on each other easily and rapidly.
- By increasing trust, the increase of collaboration and trust among the group members, the trust is increased in organization.
- By increasing trust, the increase of collaboration and trust among the groups' members, the trust is increased in organization.
- It is proposed that authorities of universities to have full trust in their employees and believe in their capabilities and abilities. It means that they can be involved effectively in decision making and research works and they can give a part or whole of work to the employees that they can feel themselves as effective.
- One of the methods of creating social capital in organizations is collecting informal groups of employees to participate in knowledge and skill. These professional groups cause that the people with shared experience, work tools and challenges can find each other (physical or virtual), visit each other to solve each other problems and help creating social capital.
- Creating flexible work organization, increasing commitment of members for common benefit, creating integration among the members, improving creativity of employees, encouraging the reduction of conservative morale of employees are other management solutions of increasing social capital in organization.
- Increasing horizontal and vertical relations in University is another management solution of improving social capital. Horizontal and vertical relations are associated to formation method of decision in networks or nature of law execution. To do this, there are some solutions as giving much power from the top managers to the low managers of university for better solution of their problems, using flat organizational structures with less complexity and concentration and holding the meetings among the top managers and subordinates to facilitate the work issues can help the improvement of horizontal and vertical relations of University.
- Improvement of information systems in University to facilitate interpersonal relations in organization causes that interpersonal communication quantity and quality are increased in organization.
- Formation of work committees to improve the relations between units and people for better recognition and defining shared work duties are one of the solutions of improving relations in organization and it leads to improving social capital in organization.
- Increasing self-managed teams as a tool for more proximity and relationship of employees with each other. This prepares the more recognition and much trust.
- Encouraging the employee's leads to the establishment of recommendation system improving the role of social capital on performance of organizational learning and organizational intelligence among the employees.
- Creating specialized portal and launching virtual discussion and thinking room in University for exchanging the experiences among the employees by dedicating knowledge code for protecting materialistic and spiritual law
- Via educational courses and holding scientific sessions and scientific journals and etc. , identification of employees from different cultures can be increased as the employees can believe in work space and respect it.
- The organization by increasing personal skills of employees namely for new employed employees and holding educational courses for the familiarity of these employees with organization missions, they are

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helped in recognizing each other and recognition of organization. These educational courses can be as they increase the skills of employees. The result of this course not only empowers the employees in their duties but also increase the employees unity.

- Short-term and long-term educational courses for managers of University to identify the importance of social capital in organization and its improvement method in University can be formed.
- Holding scientific sessions among the lecturers of University and employees and scientific discussions among the employees for exchanging thought and experiences of employees by which the scientific support force (social capital) is provided in university and on the other hand, the new knowledge is created.
- Doing continual measurement at definite time interval regarding the organizational social capital that by the studies we can have good analyses regarding elements and components of social capital in organization. These studies can help us to achieve high organizational goals.
- Academic management should evaluate the social capital among the units and various sections of organization by which they can identify the sectors in which the capital value is high and encouraging all the members of these sectors by management can help the survival of social capital and finally in organization.
- Using social capital indices in performance evaluation systems of universities, evaluation processes should be done as the social capital is improved.
- After evaluation of social capital of employees, the employees with high social capital in organization should be encouraged in organization that their behavior is a good model for other employees and beside encouragement, punishment should be not ignored. The sectors with less social capital shouldn't be encouraged like the sectors with high social capital.
- Based on the role of managers in creating and improving social capital among the employees, the managers with positive feature regarding social capital improvement in organization should be identified and encouraged.
- The managers and supervisors who endanger the organizational social capital by different methods should be discarded from management and this creates a good climate and space in organization.
- The organization management should encourage the managers and employees developing social capital in organization by holding a ceremony every year and these programs should have good norm creation.
- New methods of reward and punishment and improving organizational position can be taken by formulating new performance indices based on increasing social capital level in organization.

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