

**THE ROLE OF SOCIAL CAPITAL ACCUMULATION IN EMPLOYEES' TENDENCY TOWARD INNOVATION****(A CASE STUDY OF KNOWLEDGE-BASED COMPANIES)****Somaye Ghajari , Mohsen Amerishah, Banafshe Hazrati , and Azam Khorasani****ABSTRACT**

*In today's dynamic business, the issue of innovation is raised increasingly due to the emergence of three major trends including intense international competition, discrete markets and changing technology. These trends have attracted the attention of scholars in business area to search the concept of social capital as a critical factor in promoting performance level of organization and creating innovation based competitive advantage. However, few research has done to investigate the organizational social capital along with organizational innovation; therefore, this study aims to investigate the role of organizational social capital and its dimensions in tendency toward organizational innovation as well as determine the relative share of these dimensions in predicting the tendency toward innovation in knowledge-based companies. Method is descriptive-correlation study and the statistical population includes the employees of knowledge-based companies in Science and Technology Park of Tehran University. To analyze data, correlation analysis and step to step regression analysis were used. The result of this study indicates the effective and significant role of organizational social capital and its components in tendency toward organizational innovation. In other words, the more capital social increases, the more tendency toward innovation will be increased. Also, the dimensions of social capital including cooperation relationships, trust and mutual understanding can be a good predictor of tendency toward innovation in organization.*

**1. INTRODUCTION**

The development and progress of information and communication technology has influenced all aspects of life and created many uncertainties for man. Organizations as human communities are not free from these changes and continually react to these changes. Therefore, in these situations those organizations will be successful that can direct external environment in line with their own goals by providing proper opportunities and conditions for the creation of new and innovative thoughts and their application. Thus, the leaders of today's organizations should institutionalize innovation as a strategy across organization like quality and efficiency (Ardakani et al. 2009). Therefore, the importance of innovation as well as the necessity to create innovation in present 'competitive conditions in order to respond properly to the needs of external environment cause that many studies to be done and specified several factors that facilitate and develop the creation of innovation in organization. One of these factors is the social capital available in organization including social networks, norms and communications that impact on innovation in different aspects. Social capital as a social phenomenon cause the occurrence of innovation, idea-generation and the facilitation of innovation and risk-taking (coleman, 1988). Obviously, the effect of social capital on innovation can be in terms of shaping social environment of innovation (DeClercq, 2004 & Dakhli). In this regard, Issazadeh & Soltanifiruz 2010, as cited in Striper, 1995 stated that the proper social environment creates the situation for development so that it enables innovators to cooperate with other factors related to innovation. According to issues presented, it can be stated that by the development of social capitals in organization, organizational innovation organization will be increased too. Therefore, considering the importance and necessity of social capital role available at

organization to develop organizational innovation, in this paper we try to explain and study the relationship between these two variables in knowledge-based companies.

## **2. LITERATURE REVIEW**

### **2.1 SOCIAL CAPITAL**

According to the continuity and stability of capitals in organizations and development of authoritative presence in the turbulent and competitive environment in recent years, the importance of social capital as an intangible asset of an organization attracted the attention of those who are interested in the issues related to organization and management. Addressing this issue by researchers as well as the existing quantitative evidence indicates the undeniable role of social capital in the success of organizations that want survive in today's turbulent environment (Bourdieu, 2005). In recent years, the concept of social capital has been discussed in the fields of social science, economics and political science. The orientation of social capital concept in economic development emphasizes on the limitation of economic approach in achieving the objectives of sustainable development. Social capital is a new concept that is discussed in the economic evaluations of modern societies (Ranani,2006). Focusing on social capital, especially in economic field is done mainly based on the role of this concept in production and increase of human, economic and environmental capital (Bourdieu, 2005)..Addressing this approach in most of economic issues indicates the important role of social structures and relationships in economic variables. Social capital is mainly based on cultural and social factors and identifying it as a type of capital whether in macro-economic level and the development of countries or in the management of organizations and businesses can create new recognition of economic-social systems and improve the efficiency of policies and decisions in macro fields of society. Nowadays, along with human, financial and economic capitals another capital called social capital is also used (Baker, 2003).This concept refers to the links and relationships between members of an organization as valuable resource which leads to the realization of members' objectives by creating norms and mutual trust. Social capital which is a sociological term is discussed as a successful lever and has found a lot of interest. Social capital is a proper context for the productivity of human and physical capital and is a way to reach success (Baker et.al , 2005). Managers and those who can create social capital in organization pave the way for professional and organizational success.On the other hand, social capital gives meaning and sense to individual life and makes life easier and more pleasant (Shirvani, 2004: 12). Today, the social capital plays more important role than physical and human capital in organizations and communities. In the lack of social capital, other capitals lose their own efficiency and without social capital it will be difficult to leave behind cultural and economic development (Coleman, 2001: 37). In the traditional perspectives of management, the development of economic, physical and human capitals played the most important role, but in the current era, we need "social capital" more than economic, physical and human capital, since without this capital it will not be possible to use other capitals optimally. The society that lack sufficient social capital, other capitals will be incomplete. Thus, the issue of social capital is considered as a central factor to achieve development and those managers that can attain more production and social capital in relation to society are successful (Bourdieu, 2005: 10). Research on education and development as an investment on human capital was done by many researchers in the late of 1950 and the early of 1960. Although the early definitions of social capital theory measured worker knowledge based on school education, but the correlation of education levels with efficiency and economic growth indicated that education along with work experience finally leads to the improvement of efficiency (Newton, 2006: 117). Recently the social capital theory of sociology was derived as a potential effective force on organizational performance. Social capital can be

considered as the available source used by people in social networks and also as investment by the people in useful interpersonal relationships of markets (Sayadi, 2008). Coleman (1990) asserts that in social capital, social relationships are relationships with predictable capacity and can produce a value. Unlike human capital and traditional properties of organization, social capital exclusively is the result of significant social relationships that people invest on across time (Sharifiyansani, 2001).

By collecting expressed views, social capital can be considered as a set of network, norms, value and perception that facilitate within and between group cooperation to achieve mutual benefits and state this type of capital by participation rate of individuals in collective life and the presence of trust among them (Armbruster, 2008). In general, the conducted studies in relation to social capital focus on two perspectives. The first perspective concentrates on the use of social capital by individuals in organization and on how individuals use the available organizational resources in social networks to achieve their own goals such as social status and reputation. The other perspective emphasizes on the participation in groups and associations, increase the access to collective goals such as social and participative development (Son & Lin, 2008). Thus, as it is seen the social capital available in organization is considered as valuable asset that not only links the groups and associations of organization and helps them to reach goals, but also it helps individuals use the available organizational resources of social network to reach personal goals. Although several authors including Jacob (1961); Coleman (1998); Bourdieu (1986), Pors (2007), Cox (1995), Ojasalo (2008), Foucoyama (1999) considered different dimensions for social capital and provided some models, but none of them have been able to analyze all dimensions of social capital completely. A model with seven dimensions is presented by Vilanova & Josa (2003) that have been successful partly to compensate the weaknesses of previous models. Therefore, since this model is more comprehensive than other models and its dimensions are more tangible to be analyzed in knowledge-based companies, it has been used in this study.

### **2.1.1 NETWORK**

One of the most important aspects of social capital that is proposed in this paper is subscription to networks. Networks are very important in the development of identity and self-esteem, and it is through them that people make connections with others. Employees can get the respect of their colleagues by membership in social and organizational networks. Networks create commitment, loyalty and organizational support between members.

### **2.1.2 TRUST**

Trust is expecting ordered, candid and cooperative behavior from others that is manifested at a community based on norms. In a dynamic environment with incomplete information, trust is equal to honesty, willingness to risk-taking, cooperation and effort at the direction of group goals and desires. When there is high trust in personal or institutional relations, people are inclined to participate and cooperate in social communications. Willingness to mutual cooperation decreases the possibility of profit-seeking behaviors and negative motivations at organization. The more trust increases, the willingness toward cooperative solutions will be high (Sharifiyansani, 2001). Pors (2007) believes that trust improves organizational performance by increasing interactions and reducing cost control and opportunism.

### **2.1.3 VALU**

According to this approach, social capital is a mental phenomenon which includes a set of individuals' effective values and attitudes about how to communicate with each other. Thus, social capital emphasizes on those cultural values and attitudes that inclines individuals toward cooperation, understanding and empathy. In addition, it connects organization members and changes individuals from being opportunist and selfish along with weak social conscience and mutual commitment to those community members who have common interests and ideas about social relations (Newton, 2008).

### **2.1.4 RELATIONSHIP**

By relationship we mean the relationships between two persons or groups that can be in different forms such as cooperation, exchange, union and friendship (Morhead & Griffin, 2004). The presence of universal emotional in structuring organization allows employees react to organizational values and empowerments in an organized way (Monuryan et al., 2007). Social relations are the creators of information channels that decrease the required time and capital to gather data (Demori et al., 2009).

### **2.1.5 COOPERATION**

It indicates a collective action that organization members do in cooperation with others in society or their own group members. Mohammadi (2005) and Amini (2007) emphasize that cooperation is a prerequisite for coordination which itself is a prerequisite for innovation and competitive success. Also, they believe that cooperation leads to more obvious and accurate knowledge exchange. They explain that knowledge develops at presence of efforts an exchange in which the efficiency of group performance increases.

### **2.1.6 COMMITMENT**

Commitment can be defined as psychological link of person or group to organization in which there is a feeling of being involved in job, loyalty and belief to organization values (Taylor, 1994). This dimension of social capital includes imaging credit cards that is derived from mutual expectations and commitments. For this from of social capital, two factors are very critical. Trust level guarantees social environment that has the responsibility to refund commitments and develop its real value. Also in general, meeting of commitments and expectations reflects the feeling of common values and common identity. Real development of commitments will be influenced by a number of factors such as individuals' need to help. Therefore, it can be stated that social capital provides a mechanism to study and confirm expectations (Spellerberg, 2001).

### **2.1.7 MUTUAL UNDERSTANDING**

Here empathy or mutual understanding means to find a common sense. Mutual understanding means that a person can perceive the situation of others even when he/she doesn't experience that situation. Mutual understanding helps the person to accept and respect the other one who is different. Mutual understanding improves social relations and leads to the creation of supportive and receptive behaviors

toward other people. These skills create friendship between organization members and improve social relations so that the link between members becomes intense (Sayadii, 2009).

### **3. INNOVATION**

Zheng (2008) considers innovation as the most important capability for the growth and development of organization. Nowadays, increasingly innovation is remembered as the main factor to maintain competitive advantage and long-term success of organization in competitive markets. According to Jimenez & Cegarra (2008), the reason is that those organizations which have the capacity to create innovation can respond to environmental challenges more rapidly than non-innovative organizations, which in turn improves organization performance. Thus, it is important to know how to manage it. Innovation is along with change and is considered as a new thing that leads to change, but according to Martins & Terblanche (2003) every change is not innovation since it may not include new ideas or lead to organizational improvement. In sum it can be stated that innovation is new, effective and successful changes in market that bring the promotion of organization performance. According to the findings of Johnnessen, Olsen and Lumpkin (2001) innovative activities can be divided into six different kinds of new productions, new services, new production methods, new markets, new supportive resources and new organizing methods. In line with Taatila (2006) and Ojasalo (2008) studies, the sensible characteristic of term "innovation" is regency, administration and implementation.

### **4. TENDENCY TOWARD INNOVATION**

Tendency toward innovation is the admission and application of new ideas, processes, products or services and desire to change through adopting technology, resources, skills and new management systems. According to Siguaw, Simpson and Enz, (2006) tendency toward innovation can be considered as knowledge structure that enables company or organization to identify market dynamism. Siguaw et al. (2006) mention that innovation doesn't define tendency toward innovation, but it is the outcome and consequence of this process.

### **5. ORGANIZATIONAL INNOVATION**

According to Jacob et al. (2000), innovation is one of the main motivators for economic growth and value generation, in particular by the introduction of knowledge-based economy, innovation is considered as the key success or failure factor of organizations in competition field and as the main source of competitive advantage. For this reason as Scott and Karl (2004) state the number of studies in the area of innovation increases every year. In Baker, Hoshi and It oh's (2005) opinion, organizational innovation theory divides organizational innovation into product innovation and process innovation, it also divides innovation into the improvement in existing products and the development of new products. The former is called gradual innovation and the latter is called fundamental innovation. However, for Lu and Chen (2010), the main challenge that the researchers of organizational innovation face are related to the properties of innovative organization i.e. they can't create coordination between these properties. At the one hand, the complexity of innovative organizations' properties is relatively more and on the other hand, the diversity of properties and operational variable of innovative organization is changeable. According to literature review, it is seen that few studies have been done conceptually or methodologically about organizational innovation. For Armbruster et al. (2008), organizational innovation includes the changes in structure and the process of an organization to apply

the new managerial and operational concepts like using groups in production, managing supply chain and quality management systems. Therefore, according to the findings of Baker et al. (2003), organizational innovation is defined as applying those ideas that are new for the company.

## 6. THE CONSTRUCT OF ORGANIZATIONAL INNOVATION

According to Armbruster (2008), organizational innovation includes the changes in structure and the process of an organization to apply the new managerial and operational concepts like using groups in production, managing supply chain and quality management systems. Thus, in Baker et al.'s opinion (2005), organizational innovation has been defined as applying those ideas that are new for the company. Therefore, in this study, the dimensions of this construct are organized based on Lu & Chen (2010) and Jimenez & Sanz (2010) framework which are operationalized in accordance with technological innovation, process innovation and administrative innovation. Technological innovation means to what extent the company is pioneer in providing new products and services and allocating financial resources to research and development. Process innovation means to what extent the company uses new technologies, trains employees and experiments with new methods of doing work. Also, administrative innovation means to what extent the managers of companies use new managerial systems (new procedures, policies and forms) to run the company.

## 7. KNOWLEDGE-BASED COMPANIES

According to Gibson (2000), knowledge-based economy is a kind of economy in which production, distribution and use of knowledge is the main source of growth and wealth creation. In knowledge-based economy, economic growth and job creation is fulfilled by innovation capacity meaning that the achievements derived from research plans should be continuously converted into product, process or new systems. The driver of technological progress is creative ideas that are formed in the mind of inventors and bears fruit in the form of new business by serious attempts of entrepreneurs. Technology can be defined as all knowledge, processes, tools, methods and systems used in producing products and offering services. According to Saarenke, Jantunen and Puumalainen (2004), knowledge-based agencies are those agencies that employ graduates, experts from its main structure and knowledge is the main factor to generate revenue. In other words, wealth production in these agencies is done through using internal capabilities of individuals. In Iran, knowledge-based economic agencies are those specific agencies that have the following features:

1. The main activities of business are based on research and modern technological knowledge or their development and application is done based on technology advances in the world.
2. More than 70% of human forces in business are post-graduate expert forces in fields related to central activities of business.
3. At least 2 people among the main and fixed managers of these agencies are faculty members of universities.
4. The studies done two years ago or developed technologies in business that devoted 50% of expert forces to themselves are categorized as superior technologies.
5. Two third of professional managers work full-time.
6. These agencies have legal entity.

7. They are depended on growth centers and science and technology parks (article 1: knowledge-based economic agencies right Act at short term horizon, 138).

## 8. A LITERATURE REVIEW OF RESEARCH CONSTRUCTS:

The review of past studies shows that social capital is an influential factor on innovation. Although these studies emphasized on the importance of social capital in innovation, but none of them discussed tendency toward innovation in organization. In addition, none of them have been conducted in the context and field of knowledge-based companies. Therefore, the innovation of this study is to investigate the role of social capital as an effective factor to create organizational innovation in knowledge-based companies.

The following table indicates the summary of literature review related to social capital and innovation.

| Researcher                  | Effective dimensions of social capital  | Result   |
|-----------------------------|---|--|
| Leana and Harry (1999)      | social interactions, trust and cooperation  | Creation of value and innovation   |
| Tushman and Anderson (1997) | web links   | Facilitation of innovation   |
| Hansen (1999)               | the network unit  | knowledge transfer and innovation acceleration or knowledge transfer and innovation facilitation |
| Kotamaky (2004)             | interpersonal trust and mutual respect  | strengthen knowledge sharing and problem solving   |
| Casa et al. (2007)          | formal and informal networks, civic participation   | innovative activity  |
| Zhyng (2008)                | network size, the structural dimension of social capital, trust, cognitive norms and relational dimension | Facilitation of innovation   |

## 9. RESEARCH MODEL

Research conceptual model is an analytical tool by which research variables and their relationships are explained. Based on what was said in the theoretical basis of study, research model is shown in the following figure in line with research questions and hypotheses.

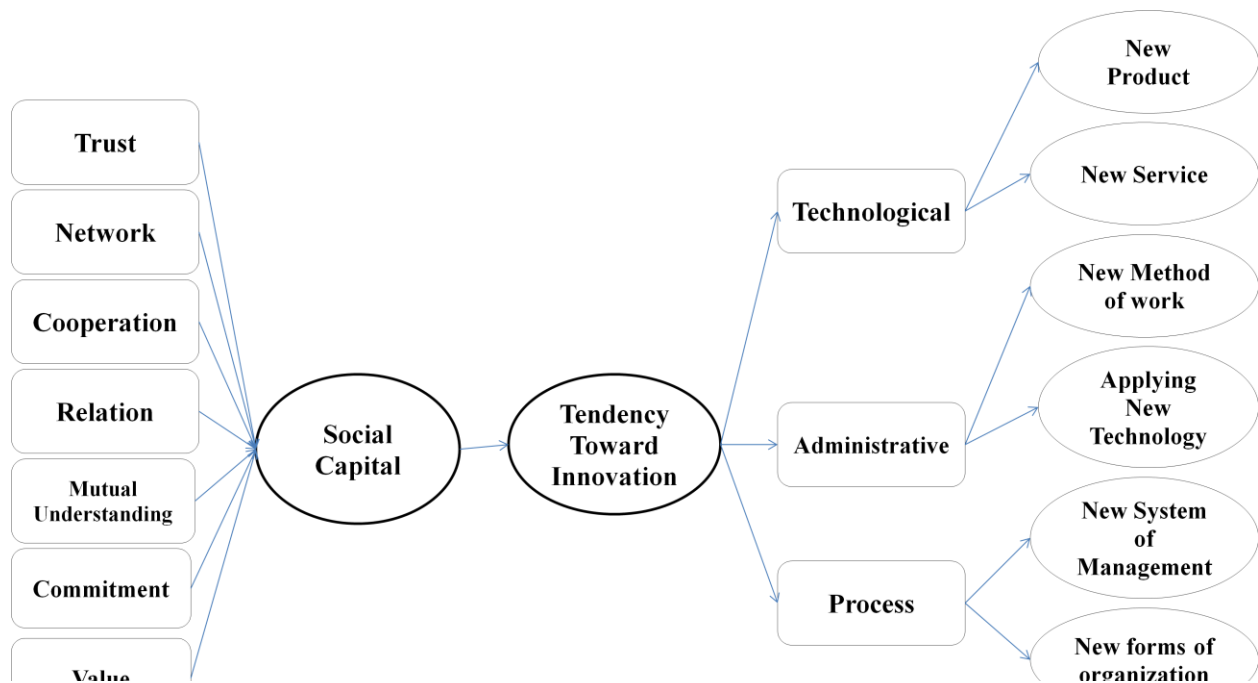


Fig1. Research conceptual model

## 9.1 RESEARCH QUESTIONS

1. How is the status of social capital and its dimensions in knowledge-based companies?
2. How is the status of employees' tendency toward innovation and its components in knowledge-based companies?
3. Is there any significant relationship between capital social and its dimensions with employees' tendency toward innovation?
4. Does each of social capital dimensions have any impact on employees' tendency toward innovation?

## 9.2 RESEARCH HYPOTHESES

**H1:** social capital in company is in desirable level.

**H2:** Trust dimension of social capital in company is in desirable level.

**H3:** network dimension of social capital in company is in desirable level.

**H4:** cooperation dimension of social capital in company is in desirable level.

**H5:** relation dimension of social capital in company is in desirable level.

**H6:** mutual understanding dimension of social capital in company is in desirable level.

**H7:** commitment dimension of social capital in company is in desirable level.

**H8:** value dimension of social capital in company is in desirable level.

**H9:** tendency toward innovation in company is in desirable level.

**H10:** technological dimension of tendency toward innovation in company is in desirable level.



**H11:** administrative dimension of tendency toward innovation in company is in desirable level.

**H12:** process dimension of tendency toward innovation in company is in desirable level.

**H13:** There is a positive and significant relationship between social capital and tendency toward innovation in knowledge-based companies.

**H14:** There is a positive and significant relationship between trust dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H15:** There is a positive and significant relationship between network dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H16:** There is a positive and significant relationship between cooperation dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H17:** There is a positive and significant relationship between relation dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H18:** There is a positive and significant relationship between mutual understanding dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H19:** There is a positive and significant relationship between commitment dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H20:** There is a positive and significant relationship between trust dimension of organizational social capital and tendency toward organizational innovation in knowledge-based companies.

**H21:** network dimension of social capital can predict tendency toward organizational innovation in knowledge-based companies.

**H22:** cooperation dimension of social capital can predict tendency toward organizational innovation in knowledge-based companies.

**H23:** relation dimension of social capital can predict tendency toward organizational innovation in knowledge-based companies.

**H24:** mutual understanding dimension of social capital can predict tendency toward organizational innovation in knowledge-based companies.

**H25:** commitment dimension of social capital can predict tendency toward organizational innovation in knowledge-based companies.

## 10. RESEARCH METHODOLOGY

In this study, research method is an applied study concerning purpose and is descriptive-survey study concerning data collection.

### 10.1 POPULATION AND SAMPLE

The statistical population of this study includes all knowledge-based companies in science and technology Park of Tehran University. This park includes three separate parts: park, growth center and entrepreneurship center. Companies located in these parts are as the following: 28 companies at park section, 47 companies at growth center and 20 companies in entrepreneurship center, which in total there are 95 companies. By referring to stated definitions and characteristics regarding knowledge-based companies in section (4), only 60 companies have the characteristics related to knowledge-based companies and the remaining ones are educational and consultative companies. Due to the limitation of

statistical population, decision was made to distribute a questionnaire among all members of population. In general, 89 complete questionnaires were received.

## **10.2 DATA COLLECTION TOOLS**

Gathering data to explain the role of social capital on tendency toward organizational innovation was done through questionnaire. Social capital questionnaire: The first tool used in this study was researcher-made questionnaire of social capital which was designed based on Vilanova & Josa (2003)' model. This questionnaire examines the seven dimensions (trust, network, mutual understanding, commitment, cooperation, relationships, value), that is adjusted in 28 items and is scored based on the five-point Likert scale (1.strongly disagree, 2. disagree, 3.No opinion, 4. Agree and 5. Strongly agree).

The questionnaire of tendency toward organizational innovation: The questionnaire of tendency toward innovation introduced by Lu and Chen (2010) includes technical, process and administrative dimensions and is one of tools used to measure tendency toward innovation in many managerial environments. It is adjusted in 35 items and is scored based on the five-point Likert scale (1.strongly disagree, 2. disagree, 3. No opinion, 4. Agree and 5. Strongly agree).

## **10.3 QUESTIONNAIRE RELIABILITY AND VALIDITY**

To determine the reliability of questionnaires, pre-test method and Cronbach's were used. To do this, at first research questionnaires were distributed among 30 members of studied population and were collected after completion. In the next step, using data obtained from these questionnaires and the statistical software SPSS 21, reliability was calculated by Cronbach's alpha. Nathalie (1978) states that those constructs are reliable that have the Cronbach's alpha of 7.0 or high. According to results, it is observed that the value of Cronbach's alpha for questionnaire is more than 0.7, which indicates that questionnaire is reliable.

After gathering the completed questionnaires and considering that the least acceptable C.V.R for 15 evaluators or expert is 0.44 (Mirzayi, 2009), therefore, the used questionnaire as one of tools to gather data has proper validity. Thus, we can rely on the validity of measurement tool.

## **10.4 STATISTICAL METHODS TO ANALYZE DATA**

To analyze data, descriptive statistics as well as inferential statistics like one sample t-test, Person correlation coefficient and step-wise regression were used.

### **10.4.1 INTERENTIAL STATISTICS: ANALYSIS OF RESEARCH QUESTIONS**

In this section based on gathered information, research questions were studied and analyzed. Considering that the normality of samples' distribution was confirmed by K-S test, the tests like statistical correlation tests, one sample t-test, coefficient and step-wise regression were used.

To answer the first research question (How is the status of social capital and its dimensions in knowledge-based companies?), one sample t-test was used. The results are presented in Table 1.

Table1: The result of T-test

| Variable             | Mean | S.D  | T     | Sig   |
|----------------------|------|------|-------|-------|
| Social Capital       | 2.81 | 0.9  | -2.17 | 0.032 |
| Trust                | 2.97 | 1.41 | -0.15 | 0.876 |
| Network              | 2.62 | 0.97 | -4.15 | 0     |
| Mutual Understanding | 2.92 | 0.97 | -0.82 | 0.411 |
| Commitment           | 2.81 | 1.01 | -1.99 | 0.048 |
| Cooperation          | 2.9  | 1.29 | -0.73 | 0.435 |
| value                | 2.53 | 1.02 | -4.97 | 0     |
| Relation             | 2.83 | 1.56 | -1.15 | 0.047 |

The obtained results showed that the mean of sample regarding the status of social capital and its dimensions (trust, network, mutual understanding, commitment, cooperation, relationships, value) in knowledge-based companies is 2.81, 2.97, 2.62, 2.92, 2.81, 2.90, 2.53 and 2.83, respectively. In addition, social capital itself and all of its dimensions in assessment continuum (based on the continuum of undesirable, rather desirable and desirable) on five-point Liker scale, obtained the mean of 1 to 2.33 (undesirable level), 2.34 to 2.66 (rather desirable) and 3.66 to 5 (desirable level) (Bazargan et al., 2007). Also, t-test showed that social capital and its dimensions are less than the mean of moderate level (3), which has been significant for social capital and the dimensions of network, commitment, relationships, and value and has not been significant for the dimensions of trust, mutual understanding and cooperation.

To answer the second research question (How is the status of employees' tendency toward innovation and its components in knowledge-based companies?), one sample t-test was used. The results are presented in Table 2.

Table2: The result of T-test

| Variable                   | Mean | S.D  | T     | Sig |
|----------------------------|------|------|-------|-----|
| Tendency Toward Innovation | 2.87 | 0.63 | -2.08 | 0   |
| Technological              | 3.13 | 0.78 | -6.09 | 0   |
| Administrative             | 2.96 | 1    | -3.65 | 0   |
| Process                    | 3.3  | 0.86 | -3.23 | 0   |

The obtained results showed that the mean of sample regarding the status of tendency toward organizational innovation and its dimensions (technological, administrative and process) in knowledge-based companies is 2.87, 3.13, 2.96 and 3.30, respectively. In addition, tendency toward organizational innovation itself and all of its dimensions in assessment continuum (based on the continuum of undesirable, rather desirable and desirable) on five-point Liker scale, obtained the mean of 1 to 2.33 (undesirable level), 2.34 to 2.66 (rather desirable) and 3.66 to 5 (desirable level) (Bazargan et al., 2007). Also, t-test showed that tendency toward innovation and its dimensions are less than the mean of moderate level (3), which is significant statistically.

To answer the third research question (Is there any significant relationship between capital social and its dimensions with employees' tendency toward innovation?), Person correlation test was used. The results are presented in Table 3.

Table3: The result of Correlation analysis

| Depend Variable            | Independent Variable | Correlation Coefficient | Sig |
|----------------------------|----------------------|-------------------------|-----|
| Tendency Toward Innovation | Social Capital       | 0.67                    | 0   |
|                            | Trust                | 0.52                    | 0   |
|                            | Network              | 0.53                    | 0   |
|                            | Mutual Understanding | 0.43                    | 0   |
|                            | Commitment           | 0.48                    | 0   |
|                            | Cooperation          | 0.55                    | 0   |
|                            | value                | 0.38                    | 0   |
|                            | Relation             | 0.55                    | 0   |

According to correlation table, it can state that social capital and all of its dimensions (trust, network, mutual understanding, commitment, cooperation, relation and value) have a positive and significant relationship with employees 'tendency toward innovation. In other words, the presence of each of these factors in organization leads to the increase of employees' tendency toward innovation.

To answer the fourth research question in relation to studying the impact of social capital dimensions on employees' tendency toward innovation, step-wise regression was used. The results are presented in Table 4.

Table 4: The result of regression

| Step  | predictive variables |      | R    | R <sup>2</sup> | Beta | T    | P     |
|-------|----------------------|------|------|----------------|------|------|-------|
| Step1 | Cooperation          | 0.55 | 0.3  | 0.27           | 0.55 | 7.13 | 0     |
| Step2 | Cooperation          | 0.63 | 0.4  | 0.17           | 0.36 | 4.29 | 0     |
|       | Relation             |      |      | 0.14           | 0.36 | 4.28 | 0     |
| Step3 | Cooperation          | 0.66 | 0.44 | 0.14           | 0.29 | 3.35 | 0.001 |
|       | Relation             |      |      | 0.11           | 0.28 | 3.31 | 0.002 |
|       | Trust                |      |      | 0.1            | 0.23 | 2.74 | 0.007 |
| Step4 | Cooperation          | 0.67 | 0.46 | 0.12           | 0.26 | 3    | 0.003 |
|       | Relation             |      |      | 0.1            | 0.25 | 2.95 | 0.004 |
|       | Trust                |      |      | 0.08           | 0.19 | 2.23 | 0.027 |
|       | Mutual Understanding |      |      | 0.1            | 0.16 | 2.07 | 0.04  |

According to regression analysis, it can be concluded that among the dimensions of social capital (cooperation, relationships, trust and mutual understanding) as predictive variables can be entered into final equation of regression to explain the changes of employees' tendency toward innovation.

### 10.5 DISCUSSION AND SUGGESTION FOR FURTHER STUDIES

Currently, social capital plays an important role than human or physical capital in organizations and communities and it is the networks of social relations that create the integrity between humans, humans with organizations and organizations with organizations. In the lack of social capital, other capitals lose their own efficiency. In addition, it will be difficult to leave behind cultural and economic development without social capital (Baker, 2003).

Based on the results of this study in relation to social capital and employees' tendency toward innovation, some suggestions are presented:

- Members of organization should be honest and right when doing works.
- Managers should prepare leaflets each year about organization vision and mission and put it in the access of all employees in the organization.
- Creation and development of cooperation in organization will be possible through doing works in group.
- Providing the atmosphere and culture of group activities and encouraging organization members to group activities by organization managers.
- One way to strengthen the communications in organization is to use working teams. By determining rewards based on team performance, organization can encourage employees to work with each other.
- Creation of responsibility feeling against the fulfillment of organization vision among organization members.
- Organization members combine their information, knowledge and other resources with each other for doing works.
- Intimacy between organization members, managers and other authorities of organization should be created and reinforced.
- The skill of mutual admission should be created and reinforced between organization members and managers.
- The new and effective ideas of employees in company and their conversion into applied knowledge should be supported.

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