



## ROLE OF SOCIAL CAPITAL IN ENTREPRENEURSHIP - CASE STUDY: SEPAHAN STEEL COMPANY

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### Abstract:

The present study examines role and effect of social capital on organizational structure and entrepreneurship in Sepahan Steel Company. In this research, the organizational – mechanical structures and knowledge base in entrepreneurship are discussed in detail. The primary goal of this research is to evaluate effect of social capital on entrepreneurship in Sepahan Steel Company. It is an applied descriptive survey. The population consists of 71 employees of Sepahan Steel Company. The documentary method of research was used to collect data on theoretical framework considering the research hypotheses. Data gathered through questionnaires and data analysis was performed using descriptive and inferential statistics. The questionnaire consists of author-made items in 5-point liker scale. Pearson correlation method was used to test hypotheses, and the results showed that there was a significantly positive relationship between entrepreneurship and social capital in its three aspects namely, structural, cognitive and relational.

**Keywords:** social capital, structural aspect, cognitive aspect, relational aspect, entrepreneurship, entrepreneurship, organizational structure, small and middle sized enterprises

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## **1. Introduction and problem description**

A fundamental key concept in economy and management is organizing that manifests in modern world as a technique. Organizing means defining functions, responsibilities, authorities and communications. Role of organizations in attaining economic, political, social and cultural goals is so profound that in each society the organizations are called vehicles of goal achievement. This is why revising the organizational structure is a must in direction of goal achievement and keeping the dynamism in the economic competition process. In a complex, competitive, dynamic and uncertain environment, organizations need both technological and organizational innovations to achieve their goals; these innovations could be achieved through different strategies (Moghimi, 2004). Today in different countries, the special attention is paid to economics-oriented entrepreneurship and entrepreneurs in context of management knowledge and economics. The entrepreneurship enhancement and providing appropriate ground for its development is a tool for economic development of the countries, in particular the developing countries. According to the global announcement of entrepreneurship, there is a strong correlation between national economic growth and level of national and organizational entrepreneurial activities (Archibong, 2004). The potential entrepreneurs exist in every country and the effort is needed to improve their abilities and more importantly, the existing structure should allow them to express themselves (Tompson, 1999). What is matter in this research is low level of entrepreneurship in economy and small and medium sized business in Qom Province (Association, 2004). Currently, entrepreneurship is an important subject to study and evaluation (Hezar Jeribi, 2005). In modern world, the key to success of economic enterprises is attention to entrepreneurs and analysis of their problems in entrepreneurial point of view (Danka, 2000), because entrepreneurship is considered a way to recreation of economic and organizational capabilities (Samad Aghaei, 1999). To this end, the connection to the world's economic network is recommended, that is, the connection to ICT networks in order to provide the optimized global services (Parker, 2001). Therefore, this study aims to answer this question whether social capital is effective in entrepreneurship of small and medium sized enterprises. So, in order to answer this question and explain this relationship, the awareness of entrepreneurship and social capital concepts seemed necessary. For this purpose, at the first part of this paper, we review the conceptualization and definitions of entrepreneurship, and then the relationship between entrepreneurship and social capital is examined addressing all types of capital, particularly social capital and its differences with other forms of capital. Finally, some recommendations are presented.

## **2. Theoretical framework**

### **2.1 Definitions**

A number of definitions have been presented for entrepreneurship. The authors of social sciences, psychology, economics and management have presented rather different definitions of entrepreneurship. What is common in them, however, is the

point that entrepreneurs are backbone of economic development, they bring dynamism and life into economic system by excluding the old and ineffective methods and replacing them by modern effective solutions (Arabiun, Shaye Sani, 2016). The word 'entrepreneur' was first emerged in 16<sup>th</sup> century referring to those who undertake a venture in military missions (Ahmad Pourdaryani, 1998). Nowadays, 'entrepreneurship' refers to process of value creation through providing a unique combination of resources to exploit an opportunity (Stevenson, 1985). A process in which a new element with a new value can be created by using creativity, time, resources, risk and by applying other factors (Marinigh, 2008). This process needs an entrepreneurial action and an entrepreneurial agent. Entrepreneurial action means conceptualization and implementation of an idea, product, service or a new business. Entrepreneurial agent is a person or a group of persons who take responsibility of doing such entrepreneurial action. On the other hand, entrepreneurial process involves attitude related and behavioral components. In attitude related aspect, the entrepreneurial process refers to tendency of an individual or organization to exploit and use new opportunities and making creative changes (Miller, 1982). In behavioral perspective, the entrepreneurship includes a set of actions needed to discover and evaluate an opportunity, to define a working commercial concept, to identify and gain required resources and to implement and exploit the business (Stevenson, 1985). Therefore, entrepreneurship is a process that results in satisfaction or creating new demand. In other word, entrepreneurship is process of value creation through building a unique combination of resources in order to exploit the opportunities, the process in which a new business is created.

## **2.2 Conceptualization of organizational structure**

Organizational structure is a formal system of functions, authorities that control the ways in which individuals' economic activities are coordinated, and the resources are used to achieve organizational goals (James, 1998). Organizational structure is represented in organization chart. Organization chart is a visible representation of all processes and activities in the organization. There are three main components in defining organizational structure:

- Organizational structure determines the formal procedures of reporting in the organization;
- Organizational structure determines the individuals who work in groups;
- Organizational and economic structure includes the systems in which all activities of offices get integrated (Daft, 1995).

Aid to information flow is of facilities provided by structure for the organization (Hugh, 1986). Although the concept of organizational structure is a fact affects all organization staff and everybody dealing with it, it is somehow an abstract concept (Estephan, 2002). In fact, structure indicates the patterns of inter-organization relations, authority and communication (Hugh, 1986). Role of individuals in the organization is fundamental of organizational structure, and it is the relations between roles that constitute the structure (Robby, 1994). Until as early as 1970s, the research on

entrepreneurship was focused on actions and characteristics of people. Then, the researchers found out that the organizations would undertake entrepreneurial actions too (Miller, 1982; Jennings, 1994; Burglemann, 1983). That caused emergence of entrepreneurship idea. In entrepreneurship literature, two types of entrepreneurship are addressed: independent or individual entrepreneurship, and entrepreneurship. The independent entrepreneur is someone who is responsible for gathering required resources to launch a new business, or someone who mobilizes the required resource to start or expand the business focusing on innovation and development of new product / service. In contrary, entrepreneurship is a process in which the innovative products/processes emerge through inducing and building entrepreneurial culture in a previously established organization. Emergence of entrepreneurial activities in an enterprise is the most evident indication of entrepreneurship (Shah'hosseini, 2006). In other word, in entrepreneurship, the entrepreneurial activities are those activities that are supported by organizational resources in order to achieve innovative results. Entrepreneur is someone who discovers and realizes new products, processes and technologies (Ahmadpour Daryani, 1998).

Entrepreneurship is a concept focused on organization, cultures and organizational processes rather than individuals. More importantly, entrepreneurship is defined a process that could be realized in all organizations, in any type and size (Druker, 1985; Gartner, 1985; Burgleman, 1983). An entrepreneurial organization is considered an organization that has undertaken innovative activities in order to get unique capabilities and capacities. Entrepreneurship is process of reviving and rebuilding the existing organizations and it is a tool to develop and improve the business, increased revenue and profits, and pioneering in development of new products, services and processes (Miles, 2002, Zahra, 1999, Kuratko, 1990). As it was said, entrepreneurship is an effort to create an entrepreneurial mentality and skills, and entering these qualities to organizational culture and activities (Stoner 1995). The same is true about public sector and it can strengthen the entrepreneurial behaviors and skills within itself. Public sector and administrative system of each country is a primary context for development and growth and a key tool to perform functions and activities of the government. Therefore, any ineffectiveness in this sector will bring numerous problems for the society (Arabiun & Shaye Sani, 2016).

Although the term 'entrepreneurship' was almost exclusively associated with private sector, it is now found in the literature on the public sector and public administration that is primarily due to importance of government in the societies and the efforts to make innovation in public organizations and improvement of their performance (Zampetakis, 2007). Numerous studies have investigated the need to recreation and making the government more effective and efficient as well as how to extend the market strategies into public sector, and improve the creativity and develop the risk taking cultures and in doing so, they have introduced the term public sector entrepreneurship (Beck, 2005). However, the studies on evaluating role of entrepreneurship in public sector are in early stages and the results are mostly relied on qualitative methods (Ferlie, 2003; Zerbinati, 2005). The idea of public entrepreneurship

is not new. Wagner defined political entrepreneurship as actions of a vast majority of individuals who are seeking to collective political benefits (Wagner, 1966). Public entrepreneurship means entrepreneurial actions in a public organization. When a new organization is created or when the organization works in a variable environment, public entrepreneurship is considered a significant function or fundamental activity. In Wagner's view, entrepreneurship is overall ability of organization to innovate. While the investors of private sector are interested in higher profitability, the government that is administered by social achievements is looking for multiple objectives rather than increased profit. The government as proponent of people welfare should be engaged to provide social development and also it is obliged to play more active role in improvement of industry and motivation (Nandan, 2007). For instance, the public universities with respect to their function are not looking for economic profitability, but they require cultural and entrepreneurial approach in order to provide services and adapt to external variable conditions.

Entrepreneurship literature is primarily focused on industrial firms and little guidelines are provided for application of entrepreneurship in other contexts, particularly in public sector. It seems that the entrepreneurship in public sector is analogous to entrepreneurship in large companies (Arabiun & Shaye Sani, 2016). They both have formal hierarchies; must answer to different stakeholders; their organizational culture is rigidly fixed and inflexible; they have numerous rules and procedures to direct activities, and the managers employ inflexible systems in order to monitor financial controls, and allocate costs and compensations for employees. These managers don't have great freedom to operate (Luke, 2006; Mitra, 2003).

Of course, it should be noted that there are significant differences between organizations in public and private sector. In general, public sector organizations are not focused on earning profit, rather, they address social and political concern, in particular that they are looking after multiple goals whose measurement is often difficult (Arabiun & Shaye Sani, 2016). Public sector organizations are dealing with different stakeholders and are under strict supervision of the public and media. Therefore, the macro decisions should be announced in transparent manner and be made based on consensus of different groups (Luke, 2006).

Public sector agencies are generally depicted as exclusive, conservative and bureaucratic units and this picture may lead to this conclusion that public sector could not be entrepreneur. While the public sector itself is not against entrepreneurship, it is structures, bureaucracy, values and traditional procedures of this sector that is harmful for being an entrepreneur (Sadler, 2000). Drunker argues that entrepreneurship is a matter of public sector, as it is the matter of private sector. He believes that entrepreneurship is partly consisted of the systematic search and analysis of new opportunities which can be innovative (Druker, 1985). These opportunities will not merely lead to commercial benefits, but they can add a new value to inter-organizational goals of public sector. The public sector entrepreneurship is not looking for wealth and its objectives may be non-financial (Boyett, 1997). Public sector entrepreneurship is something beyond earning income. It is a tool by which the public

sector institutions can communicate with the public those whom they deliver services and are responsible for and are created by them (Edward, 2002).

### 2.3 Social capital

Social Capital is the shared knowledge, understanding, norms, rules and expectation about patterns of interactions that groups of individuals bring to organization when they face social dilemmas or collective-action situations. In other word, it refers to connections between network members as a valuable source that contributes to achievement of members' goals by creating mutual norms and trust. This concept includes structural elements and cognitive elements (Francis, 2002).

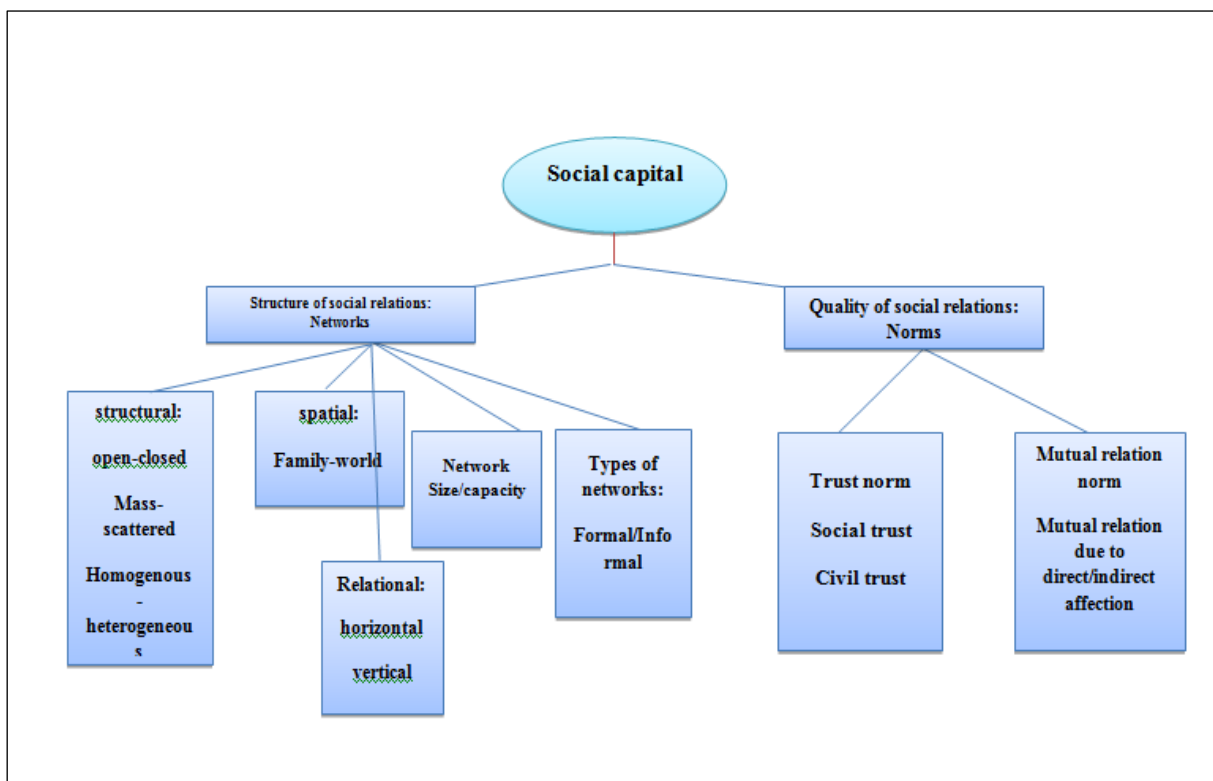


Chart 1: Aspects of social capital

#### 2.3.1 Cognitive aspect of social capital

This aspect refers to mutual relations and trust. Trust is divided to institutional and social elements (Lock Lee, 2005).

#### 2.3.2 Structural aspect of social capital

This aspect refers to examination of total communicative patterns found in the organizations. As such, it involves the extent to which network members are connected in an organization (Bolino, 2002). Structural dimension of the social capital includes number of existing tie in a network, form and configuration of the network and organizational fit (Nahapiet, 1998).

### 2.3.3 Social capital and entrepreneurship

Liao and Welsh have classified the studies conducted on organizations in three groups: the first group is focused on 'individual', 'tendency' and 'ability' of entrepreneur to undertake ventures. Numerous studies have been conducted regarding tendency and ability by scholars. The studies on tendency to launch a new business that is a venture, as well as the tendency to undertake entrepreneurial ventures, are focused on behavioral and psychological characteristics of the entrepreneur. The most famous of these studies are 'the need to success', 'capacity of innovation', 'belief to intervene in fate of self and surrounding', and 'risk taking'.

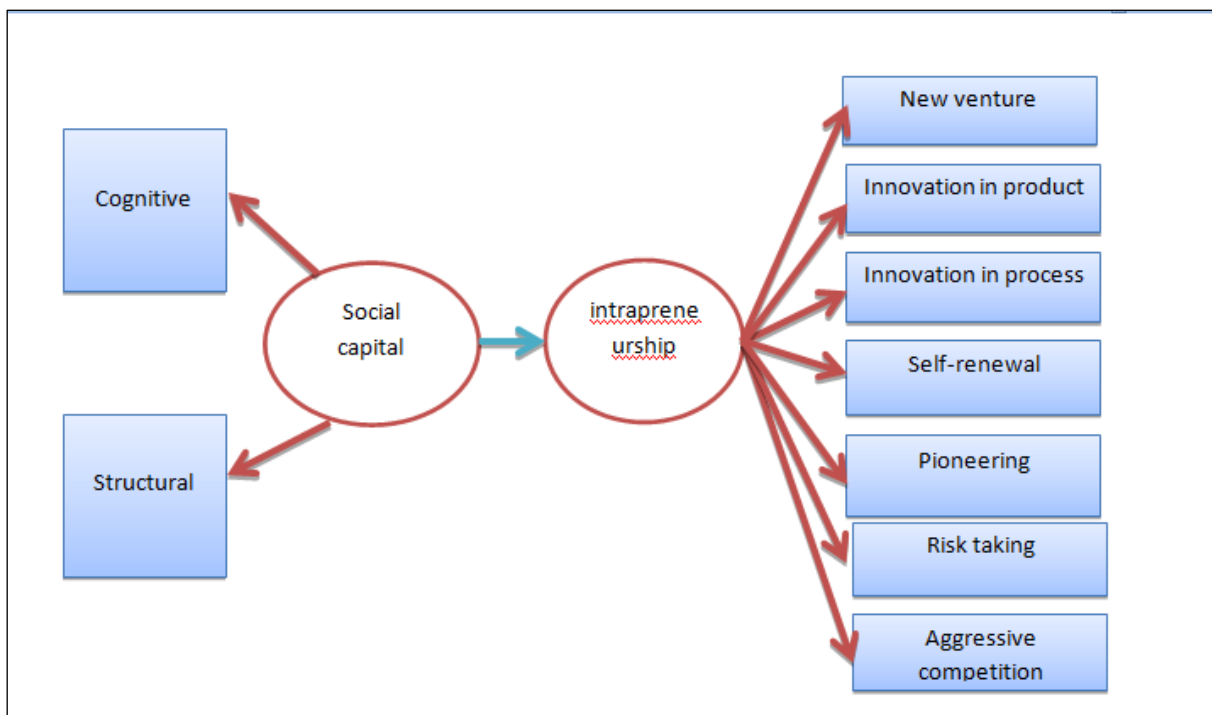


Chart 2: relationship between entrepreneurship variables and social capital

Wiklen argues that in addition to economic factors such as market advantages and capital affecting entrepreneurship, non-economic factors like social connections may have impacts on entrepreneurship. Social capital as a societal phenomenon results in creativity, idea generation, facilitation of innovative behaviors and risk taking which are considered as entrepreneurship indicators (Coleman, 2008).

Empirical studies suggest that social interactions play a significant role in facilitating innovation and creativity which are considered entrepreneurship indices. Theorists have examined the relationship between social networks and idea development and creativity. Moreover, the empirical studies have been conducted regarding the relationship between social interactions and risk taking, two other aspects in entrepreneurship (Nahapiet & Ghoshal, 1998). Recent studies indicate the relationship between network size and innovation, self-renewal and entrepreneurship. Role of networks in entrepreneurship improvement and development of new ideas were examined in recent studies and the findings support this theory (Burt, 2000).

### **3. Methodology**

Present study is an applied descriptive survey with respect to goals and nature, respectively. In applied research, the theories, rules and principles developed in basic research are utilized to solve realistic problems. With respect to data collection, this study is a descriptive survey research. In descriptive research, the components of an event or situation are described in details. It is a descriptive study, since it gathers information to test hypothesis or answer the questions related to the studied subject in status quo. This study is a survey because it investigates what a group of people know, how they think or what they do (Khaki, 2009). Following that, the subjects and problems addressed in this study were defined in realistic work place.

#### **3.1 Data collection methods**

##### **a. Library studies**

In this stage, in order to collect secondary data (data were previously produced and are available in current references), the books, journals, thesis and other documents available in specialized libraries were reviewed. Due to rarity of library references about the research subject, the primary source of data collection was internet that it adds value to importance of research and emphasizes on up-to-dated data.

##### **b. Field studies**

In this stage, two questionnaires were used to collect primary data for analysis (social capital questionnaire and entrepreneurship questionnaire in likert scale).

#### **3.2 Validity and reliability of questionnaires**

In this research, the face validity was used to test the validity. As such, the original questionnaire was given to academicians and elites to express their views whether the questions measure what are intended or not? Then their views were incorporated in the questionnaire and the required changes were made on the questions. The Cranach's alpha test was used to test reliability. Accordingly, having performed the primarily test on 30 persons selected from the studied population, the reliability score of social capital and entrepreneurship questions obtained 0.753 and 0.862 respectively using SPSS software. These statistics show that, firstly, the questions are highly correlated and secondly, the questionnaire has a good reliability.

#### **3.3 Sample and sampling method**

The population of this study is consisted of employees and staff of Sepahan Steel Company. Due to limited size of the statistical population, the whole population was considered as research population. sample size was determined using Cochran formula. Number of subjects in statistical population was 112 (i.e. number of employees in Sepahan Steel Company) and sample size estimated 71 using Cochran formula. In order to increase accuracy in resulting information, 150 questionnaires were distributed among subjects.



### 3.4 Research hypotheses

#### 3.4.1 Main hypothesis

- There is significantly positive relationship between social capital and entrepreneurship.

#### 3.4.2 Alternative hypotheses

1. There is significantly positive relationship between structural aspect of social capital and entrepreneurship
2. There is significantly positive relationship between cognitive aspect of social capital and entrepreneurship.
3. There is significantly positive relationship between relational aspect of social capital and entrepreneurship.

#### 3.4.3 Hypotheses test

- Main hypothesis: There is significantly positive relationship between social capital and entrepreneurship.
- H1: There is significantly positive relationship between social capital and entrepreneurship.
- H0: There is not significantly positive relationship between social capital and entrepreneurship.

**Table 1:** Descriptive statistic

Variable	Mean	Standard deviation	Total
Entrepreneurship	3.5153	.15634	71
Social capital	3.4973	.18576	71

**Table 2:** Pearson's r test to determine correlation between social capital and entrepreneurship

Social capital	Entrepreneurship	
0.751	1	Entrepreneurship
1	0.751	Social capital
0.003	0.003	Significance level
71	71	Total

As it is clear in table 2, the significance level of Pearson test is 0.003 and it is smaller than 0.05; on the other hand, Pearson value was estimated 0.751 that is bigger than critical value of Pearson in 0/95 confidence level and 70 degree of freedom. Therefore, there is significant relationship between two considered variables in the main hypothesis. As such, there is strong and positive relationship between social capital and entrepreneurship. Then H1 is supported and H0 is rejected and this hypothesis that there is significantly positive relationship between social capital and entrepreneurship is supported.

- The first alternative hypothesis: There is significantly positive relationship between structural aspect of social capital and entrepreneurship.
- H1: There is significantly positive relationship between structural aspect of social capital and entrepreneurship.

- H0: There is not significantly positive relationship between structural aspect of social capital and entrepreneurship.

**Table 3:** descriptive statistics

Variable	Mean	Standard deviation	Total
Entrepreneurship	3.5320	.29585	71
Social capital	3.5153	.15634	71

**Table 4:** Pearson's r test to determine correlation between structural aspects of social capital and entrepreneurship

Structural aspect of social capital	Entrepreneurship	
1	0/921	Entrepreneurship
0/921	1	Structural aspect of social capital
0/000	0/000	Significance level
71	71	Total

As it is presented in table 4 the significance level of Pearson test is 0.000 and it is smaller than the minimum level of significance, i.e. 0/05; on the other hand, Pearson value was estimated 0.921 that is bigger than critical value of Pearson in 0/95 confidence level and 70 degree of freedom. Then, there is significant relationship between two mentioned variables, i.e. there is a strong and positive relationship between structural aspect of social capital and entrepreneurship. Therefore, the H1 is supported and H0 is rejected and this hypothesis that there is significantly positive relationship between structural aspect of social capital and entrepreneurship is supported.

- Second alternative hypothesis: There is significantly positive relationship between cognitive aspect of social capital and entrepreneurship.
- H1: There is significantly positive relationship between cognitive aspect of social capital and entrepreneurship.
- H0: There is not significantly positive relationship between cognitive aspect of social capital and entrepreneurship.

**Table 5:** Descriptive statistics

Variable	Mean	Standard deviation	Total
Entrepreneurship	3.3740	.39787	71
Cognitive aspect of social capital	3.5153	.15634	71

**Table 6:** Pearson's r test to determine correlation between cognitive aspect of social capital and entrepreneurship

Cognitive aspect of social capital	Entrepreneurship	
1	0/793	Entrepreneurship
0/793	1	Cognitive aspect of social capital
0/000	0/000	Significance level
71	71	Total

As it is shown in table 6 the significance level of Pearson test is 0.000 and it is smaller than the minimum level of significance, i.e. 0/05; on the other hand, Pearson value was

estimated 0.793 that is bigger than critical value of Pearson in 0/95 confidence level and 70 degree of freedom. Then, there is significant relationship between two mentioned variables, i.e. there is a strong and positive relationship between cognitive aspect of social capital and entrepreneurship. Therefore, the H1 is supported and H0 is rejected and this hypothesis that there is significantly positive relationship between cognitive aspect of social capital and entrepreneurship is supported.

- Third alternative hypothesis: There is significantly positive relationship between relational aspect of social capital and entrepreneurship.
- H1: There is significantly positive relationship between relational aspect of social capital and entrepreneurship.
- H0: There is not significantly positive relationship between relational aspect of social capital and entrepreneurship.

**Table 7:** Descriptive statistics

Variable	Mean	Standard deviation	Total
Entrepreneurship	3.5680	.29791	71
Relational aspect of social capital	3.5153	.15634	71

**Table 8:** Pearson's r test to determine correlation between relational aspects of social capital and entrepreneurship

Relational aspect of social capital	Entrepreneurship	
1	0/834	Entrepreneurship
0/834	1	Structural aspect of social capital
0/004	0/004	Significance level
71	71	Total

As it is shown in table 8 the significance level of Pearson test is 0.004 and it is smaller than the minimum level of significance, i.e. 0/05; on the other hand, Pearson value was estimated 0.834 that is bigger than critical value of Pearson in 0/95 confidence level and 70 degree of freedom. Then, there is significant relationship between two mentioned variables, i.e. there is a strong and positive relationship between relational aspect of social capital and entrepreneurship. Therefore, the H1 is supported and H0 is rejected and this hypothesis that there is significantly positive relationship between relational aspect of social capital and intrapreneurship is supported.

#### 4. Conclusion

It can be claimed that academic entrepreneurship is an example of entrepreneurship. Academic entrepreneurship is a way to coordinate university with needs of society. It includes: solving the scientific problems of the society, government and enterprises; prepare the ground for innovative development; and commercialize the research outcomes and modern technologies. Some tools are needed to achieve entrepreneurship. One of these tools is an organizational structure compatible with entrepreneurial concepts.

Inappropriate structure causes dispute and disagreement in the organization and inhibits creativity and innovation which are the basic elements of entrepreneurship in the university. Thus far, no coherent and organized studies have been conducted regarding effect of organizational structure on entrepreneurship and hence, a gap was felt on this subject. Due to importance of organizational structure in raising entrepreneurship between employees, this research examines this gap and the results suggest that there is a significant relationship between organizational structure and entrepreneurship in Shahid Beheshti University and this is an inverse negative relationship. That is, the more rigid and bureaucratic the organizational structure, the lower entrepreneurship will be.

#### **4.1 Results of inferential statistics**

In order to test research hypotheses, the Pearson correlation coefficient test was used. The results are as follow:

- In testing the main hypothesis, using Pearson correlation test it was concluded that there was a positively significant relationship between social capital and entrepreneurship. Score of this correlation was estimated 0/751 for two aspects of social capital and performance of entrepreneurship.
- In testing the first alternative hypothesis, it was concluded that there was a significant relationship between structural aspect of social capital and entrepreneurship. Score of correlation between two variables, i.e. structural aspect of social capital and entrepreneurship in Sepahan Steel Company was estimated 0.921, indicating a direct relationship between two variables.
- In testing the second alternative hypothesis, it was concluded that there was a significant relationship between cognitive aspect of social capital and entrepreneurship. Score of correlation was obtained 0.793 between these two variables in Sepahan Steel Company, indicating a direct relationship between them.
- In testing the third alternative hypothesis, it was concluded that there was a significant relationship between relational aspect of social capital and entrepreneurship in Department of Education in Sepahan County. Degree of correlation between these two variables in Sepahan Steel Company was estimated 0.834, indicating a direct relationship between these variables.

#### **4.3 Recommendations**

1. To encourage and create professional groups and specialized associations in organizations: a structural solution to increase social capital is to encourage creating and improving the social institutions.
2. To offer recreational programs in order to improve face to face interactions: face to face interactions play a positive role in trust- based communications.
3. Adherence to ethics: managers who observe ethical principles in functions and organizational decisions build up the relations that are trustworthy.

4. Social responsibility: when employees ensure that management accepts responsibility for them and is accountable to society, then their view toward organization becomes positive and finally, the trust and confidence will be increased and distrust atmosphere will be moderated.
5. Employee training: one of the most important processes in each organization to create social capital is training process. It is necessary that an individual to pass general courses, in particular, the courses on communications.
6. Compensation: using a system in which the teamwork is rewarded rather than individuals.
7. Using the recruitment procedures in which the individual's socialization - the ability to communicate with other people and teamwork interest- is considered rather than individuals' specialty.
8. Using the indices of social capital in performance measurement systems.

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