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SOCIAL CAPITAL AND ORGANIZATIONAL INNOVATION: THE MEDIATING EFFECT OF ENTREPRENEURIAL ORIENTATION

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Abstract. *The present study aims to investigate the impact of social capital on organizational innovation by studying the mediating factor of entrepreneurial orientation in auto parts manufacturers. The statistical population of the study includes the executive managers of Iranian auto parts companies. The collected data was analyzed using the partial least squares structural equation modeling (PLS-SEM) method. The Smart PLS 2.0 software was applied for analyzing data and path modeling with latent variables. Our findings showed that social capital has a positive, significant impact on organizational innovation and entrepreneurial orientation among the staff. Entrepreneurial orientation of the staff in turn affects organizational innovation, which confirms the mediating effect of entrepreneurial orientation on the relationship between social capital and organizational innovation. The findings of the study can help managers of auto parts companies to improve innovative activities and motivate the staff toward entrepreneurial activities.*

Keywords: *social capital; organizational innovation; entrepreneurial orientation.*

1. Introduction

In today's business environment, organizations need to consider innovation as a key factor in organizational products and processes to survive in highly competitive

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international markets and changing technologies (Alegre et al., 2006; Baron and Tang, 2011). In addition, numerous scholars believe innovation is the main source for competitive advantage and many have noted that innovation plays an important role in economic development (Agbor, 2008; Chen and Chen, 2009; Gumusluoglu and Ilsev, 2009; Karkalakos, 2013). Different factors can affect innovation; among them social environments (consisting of networks, trust, norms etc.), has attracted the attention of many scholars and is known as social capital altogether (Kaasa, 2009). Social capital as a social phenomenon can lead to creativity, idea generation, facilitation of innovative behaviors, and risk-taking (Coleman, 1998); it is more than a social organization or social value. Social capital improves the output through increasing other efficient resources such as physical and human assets (Chou, 2006). Florida et al. (2002) argue that "in a high social capital society, individuals are more eager to work with each other; their risk-taking capabilities improve and this rich social capital leads to innovative activities among them".

During the past two decades the concept of social capital, beside other concepts such as human capital, physical assets and entrepreneurship, has been used to explain economic development. Beugelsdijk and Schaik (2005) argue that despite widespread use of the terms, some ambiguities and conflicts exist on the concepts related to social capital that could be accounted for by its multivariate, multidimensional characteristics (Doh and Mc Neely, 2011). On the other hand, since the concept of organizational entrepreneurship has been the subject of many management and organization researches, studying mechanisms related to entrepreneurial activities seems essential if we are to improve organizational performance. Entrepreneurial orientation is one of these mechanisms that facilitates the creation or exploration of entrepreneurial opportunities for organizations (Li et al., 2009).

Therefore, social capital is a fundamental concept in understanding creativity, innovation, and creating entrepreneurial behaviors as well as organizational dynamics because it affects and facilitates the processes of creativity, innovation, and team learning (Goyal and Akhilesh, 2007). Reviewing the literature of social capital reveals a lack of studding this concept with regard to organizational factors and entrepreneurial themes, which provides reasons for choosing the present research topic that aims to examine the impact of social capital on organizational innovation by studying the mediating factor of entrepreneurial orientation of organizations. As for secondary goals, the study will reach the goal of testing the relationships between different aspects of social capital and organizational innovation with an eye on entrepreneurial orientation among the staff.

The structure of the article is as follows. In Section 2 we elaborate the theoretical basis of the research in terms of three main constructs: social capital, organizational innovation, and entrepreneurial orientation. The relationships between them are considered to build the three hypotheses and, consequently, propose the research model. In Section 3, the research methodology regarding the sample and constructs' measurement is outlined. Section 4 covers the method of analyzing data and findings. Finally, this study is discussed and concluded with our findings as well as recommendations in section 5.

2. Theorithical basis of research and hypotheses

2.1. Social capital

Different scholars around the globe have increasingly studied social capital. It is being used in different disciplines such as sociology, anthropology, politics, economics and organizational studies. Different approaches to studying social capital as well as its interdisciplinary nature have caused confusions among scholars. Moreover, a great deal of the research conducted on social capital in the field of organizational studies has reported contradicting results (Alguezaui and Filieri, 2010).

Fukuyama (1995) defines social capital as a set of informal norms. He also uses the term for describing trust building and its direct effect on competitive advantage (Fussel et al., 2006). In other research, Putnam (1996) states that social capital focuses on aspects of social life that help the members to cooperate in achieving shared goals (Chou, 2006). Nahapiiet and Ghoshal (1998) define social capital as a set of values which are hidden and stem from a network of personal and organizational links. In other words, communication networks are considered sources of value creation for individuals and organizations. Social capital has been studied on different levels including the individual (Burt, 1992), organizational (Nahapiiet and Ghoshal, 1998), and social levels (Dakhli and De Clecq, 2004). On the organizational level, social capital is defined as an organizational value which is formed based on the relationships between its members in order to cooperate in collective activities (Freel, 2000). In general, it could be said that social capital is a sociological approach to human actions which considers an individual as an agent formed by social factors.

2.2. Dimensions of social capital

Nahapiiet and Ghoshal (1998) take an organizational approach to maintain that social capital (SC) has three aspects, namely relational, cognitive, and structural (Carey et al., 2011). They argue that the relational aspect of SC is indicative of a type of personal relationship in which individuals form relationships based on the background of their interactions. The most important aspects here include: trust, norms, requirements and expectations, and identity. According to Anderson and Narus (1990) trust is the source for discourse and the main pillar of communication. Starbuck (1992) maintains that social norms, honesty and teamwork are key characteristics of knowledge-based firms. Coleman (1990) discriminate the requirements from generalized norms and takes it as expectations formed within personal relationships. Kramer and Tyler (1996) believe that the sense of identification developed in individuals, which is known as identity, increases the anxieties about processes and collective results and, in turn, the possibility of information transfer (Andrews, 2010).

Nahapiiet and Ghoshal (1998) include the cognitive aspect as goals, perspectives, and shared values between the agents of a social system that enables them to acquire information and classify them to perception groups. Cognitive aspect of SC is indicative of the fact that as long as individuals interact as members of a group, they can form better sets of shared goals for organizations. Shared views and goals create values that facilitate the development of integrity and shared responsibility (Leana and Pil, 2006).

Nahapiiet and Ghoshal (1998) define the structural aspect as the combination between individuals and units that shows how and to whom you are connected to. Koka and Prescott (2002) studied SC along with broad perspectives including network characteristics such as sharing knowledge and information and the capabilities related to social interactions (Lawson et al., 2008). In fact, SC consists of social networks as two formal and informal forms (Carey et al., 2011).

2.3. Organizational innovation

Today organizational innovation (OI) is considered one of the main factors for competitive advantage and achieving long-term success in a competitive market (Richard et al., 2011; Petuskiene and Glinskiene, 2011). The reason is that organizations with innovative capabilities can respond to environmental challenges faster than non-innovative organizations. This, in turn, could increase the efficiency of organizations (Jimenez et al., 2008). OI includes all new ideas, methods, or goals of an organization which are successfully executed in markets (Molina and Martinez, 2010). Organizations seek to bring about new, successful changes in the market to improve their performance (Menguc and Auh, 2010). OI is showing openness, acquiring and generating new ideas and the tendency toward change through new technologies, resources, skills, and administrative systems (Ussahawanitchakit, 2008).

2.4. Dimensions of Organizational innovation

Scholars consider different aspects with regard to OI, most of which include the three aspects of productive, administrative, and process innovations (Jimenez and Valle, 2011).

1) Productive innovation is the instrument for production (Ojasalo, 2008) and refers to development and new products and services. In fact, productive innovation is the extent to which an organization is proactive in providing new services, allocating financial resources to R&D and similar cases (Song and Thieme, 2006).
2) Process innovation is an instrument for retaining and improving quality and lowering expenses (Jimenez et al., 2008). It includes new or integrated production, distribution, or delivery methods. Process innovation is the extent to which an organization employs new technologies and tests new methods for doing organizational tasks (Prajogo and Ahmed, 2006).
3) Administrative innovation refers to procedures, policies, and new organizational forms. It includes changes affecting policies, resource allocation, and other factors related to the social structure of the organization (Jimenez et al., 2008). Administrative innovation is the extent to which organization managers use modern management systems to manage the organization. Administrative and technological innovation might have slight similarities in their functional aspects, but from the standpoint of decision-making process, they are totally different (Kimberly and Evanisko, 1981).

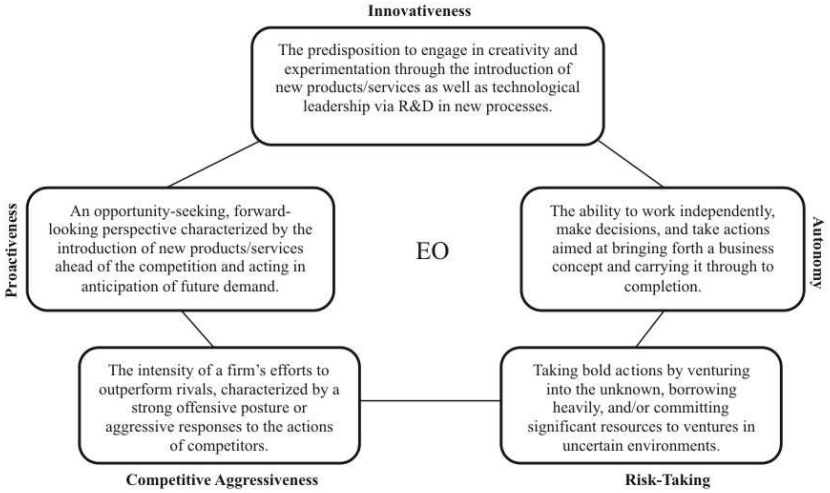
2.5. Entrepreneurial orientation

Entrepreneur organizations, in order to improve their performance, must have an outlook which encourages risk-taking and innovativeness and in this way adapt to the

changeable global economy (Lumpkin and Dess, 2001). Firms that intend to successfully trigger organizational entrepreneurship within need an entrepreneurial orientation (Najmabadi et al., 2013). Entrepreneurial orientation (EO) proposes a mental framework and an outlook for entrepreneurship which is reflected in current processes of the company and organizational culture. Majority of entrepreneurship researchers believe that organizations with a strong EO achieve their goals more efficiently (Dess and Lumpkin, 2005). Many of the existing articles have defined EO using words such as processes, methods and decision-making activities that leads to development of products or new and innovative services which can distinguish a company from others in the market (Jambulingam et al., 2005; Chen et al., 2006; Naldi et al., 2007).

Covin and Slevin in their studies suggest that EO is a multi-dimensional structure and can be evaluated from different viewpoints (Chang et al., 2007). Miller (1983) first proposed the main framework of EO dimensions. He suggested specified dimensions for describing EO. Miller defines an entrepreneurial company as one which is involved in the markets with innovative products, including slight risk, leads in innovation, and puts its rivals in a tight spot (Morris et al., 2007). Innovativeness is the reflection of a company's tendency toward new ideas and creative processes, the result of which may exist in new products, services or technological processes. Risk-taking indicates the tendency of companies toward allocation of basic resources to the projects which have success or failure possibility in them. Furthermore, risk-taking can be referred to rapid pursuing of opportunities, rapid provision of resources, and bold activities. Being a leader in the market is a forward-looking characteristic of a market leader who has an outlook toward taking the opportunities in predicting the future demand; entrepreneurs in the organization can use this outlook to stimulate the employees and help them in confrontation with the challenges they face (Lumpkin and Dess, 2001). Lumpkin and Dess (1996) add two more factors to the cases above, which can play a major role in entrepreneurial orientation: competitive aggressiveness and autonomy. Competitive aggressiveness refers to a company's tendency to get involved in hard and direct challenges with competitors to improve its market situation. Companies that aggressively compete and take opportunities with force to achieve profitability may be able to better maintain their competitive advantage in the long term, provided that their target is overtaking rivals and not hitting them (Dess and Lumpkin, 2005). Autonomy refers to independent activities of people or teams in order to create ideas and implement them. In other words, organizational actors pursue self-control opportunities and independent activities, making key decisions by themselves and implementing new ideas (Chang et al., 2007). Autonomy provides an ambition for organization individuals to identify opportunities and pursue them until they are offered to the market (Lumpkin et al., 2009). Overall, specifications of EO extend to methods of decision-making and actions of an organization's members. These factors, namely innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy, are often in interaction with each other in order to improve the entrepreneurial performance of an organization. Figure 1 depicts the dimensions of entrepreneurial orientation.

Figure 1. Dimensions of Entrepreneurial Orientation



Source: Adapted from Lumpkin et al. (2011)

2.6. Social capital and Organizational innovation

Social capital can influence innovative activities in different ways: first, innovation requires the convergence of different knowledge pertaining to different members of an organization which is provided by social capital (Song and Thieme, 2006; Zheng, 2008). Second, social capital facilitates innovation through motivating cooperation and coordination between different members/units in an organization (Nahapiiet and Ghoshal, 1998; Adler et al., 2002; Leana and Pil, 2006; Brooks and Nafukho, 2006; Goyal and Akhilesh, 2007). On the other hand, it corresponds to initiating new product strategies positively (Hsieh and Tsai, 2007). Moran (2005) highlights the relational aspect of social capital through investigating the level of personal understanding and the concept of trust in communications and argues that when there are close relationships between members, they are more motivated toward new innovative ideas and could change ideas into successful project (Lavado et al., 2010).

Therefore, innovation is essentially the output of shared efforts. In addition, social capital is known as a key factor in creating innovation in organizations (Subramaniam and Youndt, 2005). In this regard, based on the theoretical foundations elaborated above, the first hypothesis of the research is as follows:

Hypothesis 1: social capital has a positive, significant impact on organizational innovation.

2.7. Social capital and Entrepreneurial orientation

Different scholars have proposed various theories regarding the relationship between social capital and entrepreneurship. Most of this research, however, shares one point: social capital is considered social interaction and provides information, resources, and supports for entrepreneurs. Social capital provides excellent foundation for developing entrepreneurial activities and facilitates the achievement of competitive advantage (Huang and Wang, 2011; Huang et al., 2010; Kaasa, 2009; Chisholm and Nielsen, 2009; Chen et al., 2007). Social capital plays a key role in entrepreneurial activities because it is a socio-economic process relying on social context and circumstances from two points; first, entrepreneurs are products of their social environment. Second, entrepreneurship is a social activity and existence or lack of social links and connections affects the nature of businesses (Anderson and Miller, 2003). In addition, people in higher social capital groups are located in strong positions in networks. This increases the possibility of identifying economic opportunities by these individuals. Jones (2005) argues that the foundation for strategic opportunities and entrepreneurial activities is built through combining individual and organizational characteristics. This, in line with organizational learning and social capital, leads to innovation which, in turn, improves performance and competitive advantage. Based on the theoretical literature related to social capital and entrepreneurial orientation, the second hypothesis is as follows:

Hypothesis 2: social capital has a positive, significant impact on entrepreneurial orientation.

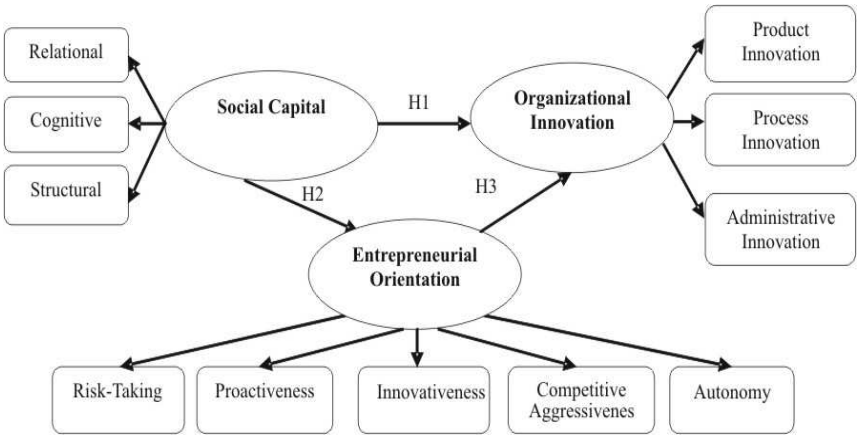
2.8. Entrepreneurial orientation and Organizational innovational

As previously mentioned, entrepreneurial orientation refers to strategic activities of an organization and shows how companies discover and exploit new opportunities (Wiklund and Shepherd, 2003; Teng, 2007). Entrepreneurial orientation describes a company's inclination toward engagement in pursuing market opportunities and revising operational fields (Hult and Ketchen, 2001). Entrepreneurial orientation makes a company create an innovative, proactive, and risk-taking climate in the organization (Lumpkin and Dess, 1996). By adopting a strong entrepreneurial orientation and organizational learning, and facilitating social ties between companies, an organization could promote the required knowledge to create innovation (Zahra and George, 2002). Entrepreneurial orientation provides the latest knowledge that help in exploiting the new and innovative market opportunities (Li et al., 2009). An entrepreneurial climate could create a knowledge sharing aptitude in the organization and this in turn would help different divisions of the organization to discover new opportunities and drive it toward becoming innovative in the future (Li et al., 2006). Therefore, the relationship between entrepreneurial orientation and innovation would be as follows:

Hypothesis 3: entrepreneurial orientation has a positive and significant effect on innovation.

Figure 2 shows the hypotheses as conceptual model of our study:

Figure 2. Hypothesized Research Model



Source: Developed by the authors

3. Research methodology

Structural equation modeling (SEM) is used to survey our causal-type study and investigate the cause and effect relationships between constructs and allows us to carefully examine the conceptual model. SEM is the best tool for research analysis in which the observable variables have measurement error and also the relationships between variables are complex (Reisinger and Mavondo, 2007). By employing this method one is able to, on the one hand, measure the precision of indexes or observable variables and, on the other hand, investigate the causal relationships between latent variables and the amount of explicated variance (Hair et al., 2010). SEM is comprised of two sections of measurement model and structural model. Besides, Variables in SEM are divided into two categories of observable and latent variables (Kline, 2010), in such a way that social capital, organizational innovation and entrepreneurial orientation are latent variables. Relational, cognitive and structural dimensions of social capital are focused on in this paper. On the other hand, innovativeness, risk-taking, autonomy, proactiveness and competitive aggressiveness are dimensions of entrepreneurial orientation. Moreover, performance is evaluated via five indexes of growth in sales, return on investment, operating profit margin, return on equity, and customer retention.

3.1. Sample

We chose our sample from executive managers of Iranian auto part manufacturers containing about 540 people. We used stratified random sampling to categorize people of our sample and then Cochran's formula to calculate the sample size: $n= (Z^2pqN) / (N^2+Z^2pq) = 225$

Where n is the sample size, N is the population size (540), Z is the confidence interval, P is the estimated proportion of the attribute under study, q is derived from 1-p and finally e is the precision level (Cochran, 1977). Besides, Based on Krejcie and Morgan's (1970) table for determining sample size, for a given population of 550, a sample size of 225 would be needed to represent a cross section of the population. However, to ensure more, 250 questionnaires were distributed and 228 questionnaires were completed (response rate 91%).

3.2. Measurement of constructs

Our survey instrument contains three sections each with items related to three constructs. The first section of our questionnaire includes 19 items for measuring social capital based on Chang and Chuang (2011): the first 4 items are related to the structural dimension, the next 12 items consider the relational dimension, and finally, the last 4 items measure the cognitive dimension of social capital. The second section includes 22 items for measuring entrepreneurial orientation: the first 5 items adapted from Dess and Lumpkin (2005) for measuring autonomy, 6 items for innovativeness and 3 items for risk-taking (Covin and Slevin, 1989) which Covin and Wales (2011) pointed out, 3 items related to proactiveness and finally 2 items for aggressive competitiveness (Lumpkin and Dess, 2001). Finally, the third section of our questionnaire includes 9 items for measuring organizational innovation based on Jimenez et al. (2008) which measures product innovation (the first 3 items), process innovation (the next 3 items) and administrative innovation (the last 3 items). All measures use a seven-point Likert-type response scale and are reflectively specified because we treat the Latent constructs as giving rise to their observable indicators (Diamantopoulos and Siguaw, 2006).

4. Analysis and findings

4.1. Method of analysis

For our data analysis, we applied structural equation modeling (SEM) and a component-based approach. Partial least squares (PLS) using Smart PLS 2.0 software (Ringle et al. 2005) was used to conduct the modeling and test our hypotheses shown in the model of Figure 3.

4.2. Measurement model

Before proceeding with the structural model, we first conducted a confirmatory factor analysis using the software Smart PLS 2.0 for assessing measurement model in terms of reliability and validity. Item reliability (Rivard and Huff, 1988) and convergent and discriminate validity (Fornell and Larcker, 1981) are assessed through data analysis.

4.2.1. Reliability assessment

For item reliability, the loadings parameters between construct and measures were assessed to indicate that significant variance was shared between each item and the construct. The loadings showed that none of them are equal or higher than 0.4 (Hulland, 1999). Therefore,

none of items were removed from the analysis. We also assessed internal consistency by Rho (the ratio of construct variance to the sum of construct and error variance). As shown in table 1, the values of Rho for all first order constructs are significantly greater than 0.5, which indicates suitable status for internal consistency (Rivard et al., 1997). Besides, alpha cronbach values of our first order constructs are above or close to 0.7 which implies the acceptable level for reliability (Fornell and Larcker, 1981):

Table 1. Reliability assessment

Variables	No. of items	Rho	Cronbach's alpha	Mean	S. D.
Structural dimension of SC	4	0.82	0.71	5.1	0.21
Relational dimension of SC	12	0.86	0.69	4.9	0.34
Cognitive dimension of SC	4	0.84	0.72	4.8	0.34
Autonomy	5	0.70	0.74	4.4	0.43
Innovativeness	6	0.73	0.75	4.6	0.57
Risk-taking	3	0.75	0.69	4.9	0.58
Proactiveness	3	0.77	0.75	4.1	0.43
Aggressive competitiveness	2	0.73	0.68	5.0	0.47
Organizational innovation	3	0.80	0.78	4.6	0.35

Source: Developed by the authors

4.2.2. Convergent and discriminant validity assessment

To evaluate Convergent and discriminant validity, first we used the confirmatory factor analysis procedure in PLS. All items loaded well on their respective constructs, which were noticeably greater than all cross loadings. This implies adequate convergent and discriminant validity (Pavlou and Gefen, 2004).

In next step, we used average variance extracted (AVE) and composite reliability (CR) especially for assessing convergent validity. As shown in table 2, all values are higher than threshold: 0.5 for AVE (Hulland, 1999) and 0.7 for C.R. (Nunnally, 1978):

Table 2. AVE and C.R.

Variable	SD	RD	CD	AU	IN	RT	PR	AC	OI
AVE	0.69	0.62	0.62	0.63	0.70	0.64	0.64	0.72	0.61
CR	0.80	0.81	0.82	0.84	0.84	0.79	0.84	0.71	0.87

SD: Structural dimension; RD: Relational dimension; CD: Cognitive dimension; AU: Autonomy; IN: Innovativeness; RT: Risk-taking; PR: Proactiveness; AC: Aggressive competition; OI: Organizational innovation.

Source: Developed by the authors

For assessing discriminant validity separately, we used comparison between constructs correlations with each other and the square roots of AVE values calculated for each of the constructs. Fornell and Larcker (1981) applied a correlation matrix for this comparison, which includes the correlations between different constructs in the lower left off-diagonal elements of the matrix, and the square roots of AVE values of each constructs along the diagonal. For sufficient discriminant validity, the diagonal elements should be significantly higher than the off-diagonal elements in the corresponding rows and columns. As displayed in table 3, all values in the diagonal (the square roots of AVE values of each constructs) are higher than other elements of the matrix, representing adequate discriminant validity.

Table 3. Discriminant validity

Variables	SD	RD	CD	AU	IN	RT	PR	AC	OI
SD	**0.83**								
RD	0.37	**0.78**							
CD	0.31	0.16	**0.79**						
AU	0.11	0.12	0.17	**0.79**					
IN	0.18	0.21	0.21	0.10	**0.83**				
RT	0.22	0.37	0.30	0.21	0.28	**0.80**			
PR	0.34	0.33	0.35	0.19	0.14	0.10	**0.80**		
AC	0.33	0.38	0.34	0.31	0.16	0.17	0.41	**0.85**	
OI	0.33	0.39	0.35	0.30	0.14	0.11	0.27	0.26	**0.78**

Source: Developed by the authors

4.3. Structural model

The second step of structural equation modeling is the assessment of the structural model. We used Smart PLS 2 (Ringle et al., 2005) to test our hypothesis: H_1, H_2 and H_3. Moreover, we checked model quality by R^2 values of endogenous constructs. Our results from Smart PLS 2 as depicted in figure 3 indicate that all of R^2 values (inside circles in parentheses) are high demonstrating the sufficiency of structural model. Besides, as depicted in Figure 3, our hypotheses (H_1, H_2 and H_3) are accepted due to the t-values which are presented in the parentheses related to each path. According to figure 3, all t-values are more than 1.96 ($p < 0.05$).

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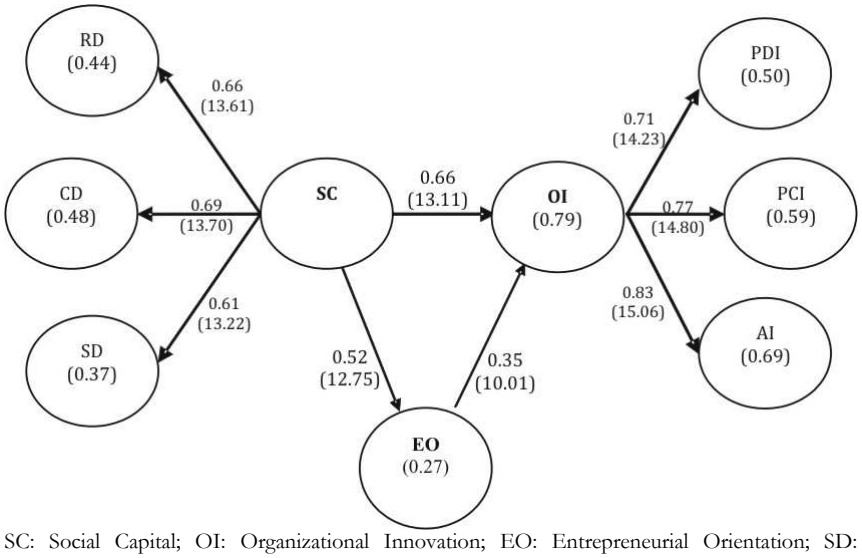
Figure 3. Research model with path coefficients and significance level



SC: Social Capital; OI: Organizational Innovation; EO: Entrepreneurial Orientation; SD: Structural dimension of SC; RD: Relational dimension of SC; CD: Cognitive dimension of SC; PDI: Product Innovation; PCI: Process Innovation; AI: Administrative Innovation.

Source: Developed by the authors

5. Discussion and conclusion

The results of the study showed that organizations need different stimuli and driving forces in order to implement and execute innovation. Social capital is one of them. (Brooks and Nafukho, 2006; Kaasa et al., 2007; Laursen et al., 2012). By improving the organizational cognitive, structural, and relational aspects of social capital, the organizations could facilitate the implementation of innovation. Moreover, entrepreneurial orientation plays a significant mediating role in the relationship between social capital and organizational innovation.

In the first hypothesis, it was revealed that social capital has a direct and significant impact on innovation in the organization. This is to say, the higher the degree of communications and the larger the employee's social network, the better the context for the occurrence of innovation. This may be due to the increase in the exchange of ideas and new concepts when the employees come into closer contact with each other. As Brooks and Nafukho (2006) argue, knowledge sharing among the organization members plays an important role in the occurrence of innovation. In fact, they are referring to the possibility of information transfer when the relationships between organization members are improved. Wu et al. (2011) also introduced network-like relationships between individuals as an important and effective factor in the occurrence

of innovation. Moreover, Jimenez et al. (2008) introduced the relational aspect of social capital as being composed of trust, individual's identity, and interaction and then illustrated the effect of the relational components on innovation. For example, with respect to trust, they argue that it is after building trust among the organization members that one could expect information transfer among members to lead them to new ideas and methods. Moreover, their research results are consistent with the present research results. The cognitive aspect of social capital, on the other hand, also has a positive and significant effect on organizational innovation. This is to say that shared views and goals among the organization members brought about through value creation, fosters innovation in the organization. Quoting Pearce and Ensley (2004), Zheng (2008) states that shared vision among the organization members encourages innovation in products and processes. According to them, shared vision reduces conflicts between employees and makes it easier for them to arrive at new ideas. Furthermore, Kaasa et al. (2007) argue that employees' civic engagement, which is a result of norms and shared values, affects innovative activities. In fact, they believe that when the organization members share the same visions, goals, and values then innovation will find room to thrive. Ultimately, the positive effect of the structural aspect of social capital on innovation indicates that the components of the structural aspect of social capital including the extent of the network have a strong effect on innovation. The research findings of Zheng (2008) and Kaasa et al. (2007) also show that social capital, especially its structural aspect in the shape of formal and informal networks and civic engagement, has a positive effect on innovative activities.

The second research hypothesis suggests a positive effect of social capital on entrepreneurial orientation in the organization. Recent research indicates a relationship between the interactions of individuals in a social network and innovation, renovation, and entrepreneurship. The role of social capital in the improvement of entrepreneurship in organization has been the subject of recent research. A lot of research supports the theory that social capital provides a suitable ground for the development of entrepreneurial activities (Runyan et al., 2006; Nan and Zhong-ming, 2007; Huang et al., 2010). The individuals in social groups who have more social capital are more likely to effectively recognize and exploit business opportunities. The relationships between the organization members, more particularly, indicate the relational aspect of social capital and when solid and sturdy, it enhances a feeling of trust among them which in turn leads to innovative ideas, risk-taking, proactiveness in exploiting opportunities, dynamic competitiveness, and organizational autonomy. Furthermore, the shared visions and goals among organization members indicate the cognitive aspect of social entrepreneurship, which via value creation leads to integrity and a sense of responsibility and is eventually conducive to entrepreneurial orientation in the organization. In addition, the improvement of the relationships between organization units indicates the structural aspect of social capital, and it promotes entrepreneurial orientation by facilitating innovative ideas among different units.

In the third research hypothesis, it was revealed that entrepreneurial orientation has a positive and significant effect on organizational innovation. In fact, new ideas, risk-taking in activities, proactiveness in exploiting opportunities, autonomy, and competitiveness encourage innovation in the organization (Lumpkin and Dess, 1996;

Wiklund and Shepherd, 2003; Li et al., 2009). In other words, new ideas lead to the implementation of new methods or mechanisms in the organization. Furthermore, the implementation of high-risk decisions and encouragement of risk-taking is the result of searching for new solutions and methods of problem solving in the organization. Likewise, implementing organizational proactiveness in exploiting opportunities in the business environment leads to unique and innovative activities. Implementing the autonomy policy in the organization leads the executive mechanisms to support new decisions. Finally, organizational competitiveness requires new ideas and initiatives more than anything else.

Therefore, given the fact that social capital results in innovation, as the main capacity of the organization, it is essential that managers be alert about social capital management in their organizations by assessing, measuring and improving social capital in order to benefit from competitive advantage and to increase the organizational efficiency and effectiveness. On the other hand, there are other important concepts on the state of entrepreneurship which need attention, such as entrepreneurial orientation, which was the focus of the present research. Thus, one of the ways to foster or improve innovation in the organization is to improve the entrepreneurial orientation aspects.

On the other hand, considering that there are many other factors that could affect innovation, for the future research it is recommended that researchers investigate the effect of each one of those factors on organizational innovation and hence determine the significance of each factor more evidently. Moreover, researchers could examine the factors that moderate the relationship between social capital and innovation in the organization for future research.

List of Acronyms

SC: Social Capital

OI: Organizational Innovation

EO: Entrepreneurial Orientation

SD: Structural dimension of SC

RD: Relational dimension of SC

CD: Cognitive dimension of SC

AU: Autonomy

IN: Innovativeness

RT: Risk-taking

PR: Proactiveness

AC: Aggressive Competition

PDI: Product Innovation

PCI: Process Innovation

AI: Administrative Innovation

SEM: Structural Equation Modeling

PLS: Partial least squares

S. D.: Standard Deviation

AVE: Average Variance Extracted

CR: Composite Reliability

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