Social Network of the Executive Managers and the Performance of Iranian Start-Up Businesses; Evidence based on the Findings of the Global Entrepreneurship Monitor (GEM)

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Abstract
Social networks include relationships that provide information and resources needed by entrepreneurs. The aim of the present study is to investigate the effect of using the consulting resources of the social network of entrepreneurs (executive managers) on the performance of Iranian start-up businesses (n=135) that participated in the 2020 research program of the Global Entrepreneurship Monitor. The results of 2020 GEM data based on structural equation modeling show that the size of entrepreneurs' social network has a positive effect on their business performance. Also, the results of the present study indicate that family support of business owners increases the effect of social networks on the performance of their businesses.

Key words: MBA, Executive Management, Social Network, Business Management, Global Entrepreneurship Monitor

Introduction
Considering the importance of the social and economic role of small and medium businesses in the competitive environment of today's world, the accurate measurement of performance (Murphy, Traylor and Hill 1996) and the investigation of the factors affecting it (Chrisman, Barschmitt and Hofer 1999) is one of the important issues. Researchers and policy makers in the field of entrepreneurship. Small and medium businesses in Iran have a high ability to grow and export; But despite this, they account for a small share of non-oil exports - less than five percent (Mirbergkar3, 2009). Due to the fact that non-oil exports are the most employment-generating economic sector of the country (Jaafari Samimi and Sina 2014), identifying the factors affecting business performance is of considerable importance.

One of the factors affecting the performance of businesses is the intangible resources available to the owners of those businesses (Chrisman et al., 1998). Among the intangible resources that affect the success of businesses, it can be mentioned the development of social networks by entrepreneurs (Dubini and Aldrich, 1991) and benefiting from network supports (Broderel and Preissendorfer, 1998), which It constitutes the analysis of the present research.

Social network is a unit of social structure that consists of social nodes of people and relationships between them (Gottlieb and Bargen, 2010). Entrepreneurs receive a wide range of resources, including information, access to financial resources, access to skills, knowledge and advice, and social legitimacy through their networks (Clever and Hindel, 2007). Nevertheless, Shot (2010) has stated that the most important resource for entrepreneurs is "knowledge" which is obtained either through learning from education and previous experiences or through consultations received from limited or wide circles. It is obtained from consultants who belong to different parts of their lives (Shot, 2010).

The purpose of this research is to investigate the effect of social networks of entrepreneurs (executive managers) on the performance of start-up businesses in Iran. Although it is expected that receiving advice from social networks has a direct effect on business performance, it is believed that
the intensity and direction of this relationship is also affected by other factors. Broedel and Preissendorfer (1998) believe that the practical and emotional support of entrepreneurs' networks is not only a factor to compensate for the lack of human capital (knowledge and previous experience), but also improves the performance of their businesses. Among the members of the network around entrepreneurs, Anderson, Jack and Dodd (2005) have mentioned the family institution as the most important source of providing emotional and practical support. Therefore, it is expected that the factor of practical and emotional family support will modify the relationship between entrepreneurs' social networks and their business performance.

Therefore, the problem of the current research is whether the social network and family support of entrepreneurs (executive managers) have an effect on business performance? In this research, in order to investigate the effect of social network and family support on the performance (with dimensions of export and employment growth) of start-up businesses in Iran, the 2020 data of the Global Entrepreneurship Monitor and the methodology of structural equation modeling and Smart Pay software were used. L. S. It is used that before presenting the results, the background of the research is examined and analyzed first.

2- Examining the Background and Hypotheses of the Research

Scientific writings on entrepreneurship show that in traditional approaches to entrepreneurship, no attention has been paid to the social context in which the entrepreneur works (Aldrich and Zimmer2, 1986), but after researchers considered the social background of individuals as a research gap, they investigated the entrepreneurship process in its environmental context (O'Donnell, Gilmore, Cummins and Carson1, 2001). For example, in the 1980s, the focus of entrepreneurship research has changed from the study of the sociological and psychological characteristics of entrepreneurs to the social context in which entrepreneurship takes place (Birley 2, 1985). Based on this, new entrepreneurship texts have also changed their view of entrepreneurs, from independent and rational decision makers, to people who are embedded in social networks (Aldrich and Zimmer, 1986; Huang and Antoncik, 2003). This view states that relationships and social background not only influence entrepreneurial activities, but also influence entrepreneurial performance (Jack and Rose, 2010). In this context, recognition of the importance of social networks in the entrepreneurship process has been developed as one of the most important areas of entrepreneurship research since the mid-eighties (Clever and Hindel, 2007).

The starting point of studying entrepreneurship through social networks is to examine relationships or interactions between people (Aldrich and Zimmer, 1986). In the field of entrepreneurship, the view of the network is based on the principle that entrepreneurship is a social role (Broedrel and Preissendorfer, 1998).

Research in the field of network in order to gain a deeper understanding of how entrepreneurs and their organizations operate and are managed has been formed at two individual and organizational levels (Jak5, 2010). In fact, entrepreneurial networks can be divided into two general categories: inter-organizational networks and personal networks of entrepreneurs. The topic of inter-organizational networks is generally used in the field of research at the industry level; While the concept of the personal network of entrepreneurs is often raised in the context of newly established businesses (O'Donnell et al., 2001).

Entrepreneurial networks include relationships through which the necessary information and resources are available to entrepreneurs. These relationships may be classified as membership in official organizations, relationships with suppliers, distributors and customers, or social contacts including acquaintances, friends, family and relatives. Entrepreneurial networks provide psychological and practical support to entrepreneurs by providing financial and informational resources as well as providing access to opportunities (Doud and Patra1, 2002).
As mentioned, the social network of entrepreneurs includes the people around the entrepreneur. Shot (2010) has divided the social network of entrepreneurs into five separate networks through factor analysis technique. Private network that includes spouse, parents, other family members and friends. A work network that includes the entrepreneur's colleagues and his boss. Using the experiences of a person who came from another country, a person from abroad, an entrepreneur who is in the stage of starting a business, a person with high experience in business, a researcher, an investor, and a business consultant are part of the entrepreneurial network. It is a person. Likewise, the professional network includes the bank, attorney, accountant, and finally the market network also includes partner and rival companies, suppliers, and customers (Shot, 2010).

The resources obtained from social networks of entrepreneurs affect the economic outputs of businesses (Yozi, 1997). For example, the results of Dunkels and Lambrecht's research (1995) show that achieving growth requires investing in networks. Also, Lee, Choi and Lee (2008) believe that entrepreneurial networks increase their performance through the information they provide to entrepreneurs. The research of Lee and Tiseng (2001) also emphasizes the positive effect of networking activities on business growth.

Several factors such as entrepreneur's characteristics, industry structure, business strategy, organizational structure, resources, and company systems and processes affect business performance. One of the effective factors on business performance is the intangible resources at their disposal (Chrisman et al., 1998); Therefore, according to the fact that the development of social networks is considered by entrepreneurs as one of the intangible resources, the first hypothesis of the research is formed as follows:

**The first hypothesis**: the social network of entrepreneurs has an effect on the performance of start-up businesses.

But recent studies show that there are important modifying variables in the effect of social network on business performance, emotional and practical family support is one of them.

Of course, the growing recognition of the importance of "family" in the field of entrepreneurship research has its roots in researches that study the socio-cultural background of entrepreneurship and perhaps more clearly, issues related to entrepreneurial networks (Anderson, Jack and Dud2, 2005). Despite the fact that many research fields have generally considered the two entities "business" and "family" as two separate social entities, there are also studies that investigate the importance of the role of family relationships in different dimensions of business and (Aldrich and Cliff, 2003). Kirkwood (2007) found in his research that parents play an important role in creating entrepreneurial businesses. Similarly, Starr and McMillan (1990) state that kinship ties form the foundation of new businesses (Anderson, Jack and Dowd, 2005). Chrisman and colleagues (2003) also consider the family as a vital resource that is repeatedly used by entrepreneurs in the start-up phase (Aldrich and Cliff, 2003). Also, Davidson and Honig (2003) state that having parents or close friends or neighbors who are involved in business, as well as receiving encouragement from friends and family, increases the probability of entering a business (Anderson, Jack and Dodd, 2005).

Entrepreneurs can benefit from family support in the process of creating and setting up their business in different ways. For example, Dyer and Handler2 (1994) state that the initial capital of businesses is generally the result of a person's personal and family assets (Anderson, Jack and Dodd, 2005). Baygrave and colleagues3 (2003) also found, based on the analysis of GEM data in 29 countries, that about half of the relationships between entrepreneurs and informal investors were kinship relationships (Clever, 2007). In addition to economic support, relying on family members as labor is very common among small businesses. Many entrepreneurs rely on their family members to recruit employees. For example, Aldrich and Langton4 (1998) found that 25% of the companies they studied used their family members as employees in the initial stages of business formation (Aldrich and Cliff, 2003). Therefore, the second hypothesis that is proposed is that:

**The second hypothesis**: family support has an effect on the performance of start-up businesses.
On the other hand, Stewart5 (2003) has presented a list of the benefits of the kinship network by examining the role of relatives in entrepreneurial networks. Commitment, tacit knowledge, access to information, credit, and willingness to spend time, money, and effort are among the advantages of strong nodes of entrepreneurial networks. Anderson, Jack, and Dodd (2005) have studied the role of family members in entrepreneurial networks, how and how much entrepreneurs benefit from resources from informal participation and beyond the formal boundaries of family companies. The results of their research show that receiving support from family members who are working outside the boundaries of the company is of higher importance and quality than the support of friends and business colleagues. Also, the results of this research show that family help often takes the form of emotional support. Receiving advice, access to information, and solving problems are also examples of support that entrepreneurs receive from their families. The support that an entrepreneur receives from his family is more practical than the help that comes from friends and business partners (Anderson, Jack and Dodd, 2005). This type of research results encourages researchers to do more research on the role of family members in the entrepreneurial process. The changing role of family members and their level of participation during the entrepreneurial process is basically still unknown. Also, the effect of having the support of family members in the entrepreneurial network has not yet been accurately studied (Clever, 2007). With these words, the third hypothesis is proposed:

**The third hypothesis:** family support modifies the effect of social network on the performance of start-up businesses.

3- Research method

The current research is in the category of applied research in terms of its purpose and in the category of descriptive-correlational research in terms of method and nature. The statistical population of the current research is the entrepreneurs (executive business managers) of Iran who participated in the 2020 GEM program. Among the statistical population of the current research, 135 budding entrepreneurs have been identified as the research sample.

GEM is an international program that seeks to investigate the differences in entrepreneurial activities of different countries and how these activities affect the economic growth rate of countries. Therefore, every year people aged 18-64 are asked about their participation and attitude regarding different aspects of business (Clever, Hindel and Mir1, 2008). The 2020 GEM research in Iran was conducted through interviews (based on a survey) with 3353 adults in 42 cities of the country with a multi-stage sampling method.

The data analysis of this research was done using structural equation modeling. Due to the small size of the research sample (135 people), from the PI method, L. S. has been used to analyze the data, examine the hypotheses and present the final model of the research. To analyze the descriptive statistics of demographic variables from SPSS software version 18 and also to model structural equations, Smart PL software. S version 2 is used.

Also, composite reliability coefficients and Cronbach's alpha were used to examine the reliability of the constructs in the present study. Also, to determine the convergent and divergent validity of the research constructs, the average variance index was extracted and the diagnostic validity was used, respectively.
As table number one shows, composite reliability coefficients and Cronbach's alpha in all the constructs of this study are higher than the acceptable minimum, that is, 0.7. Therefore, it can be said that all the structures of this research have good reliability. On the other hand, the extracted average variance index for all constructs is higher than 0.5, which indicates an acceptable convergent validity.

Table 2 - The validity and variance of the research constructs

<table>
<thead>
<tr>
<th>Social network* family support</th>
<th>Social network</th>
<th>Performance</th>
<th>Family support</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.00 Family support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.79</td>
<td>0.33 performance</td>
</tr>
<tr>
<td></td>
<td>0.74</td>
<td>0.39</td>
<td>0.30 Social network</td>
</tr>
<tr>
<td></td>
<td>0.78</td>
<td>0.29</td>
<td>0.34 Social network* family support</td>
</tr>
</tbody>
</table>

Table 2 shows the divergent validity of research constructs. As can be seen in this table, the average root of the extracted variance (AVE) for all constructs is higher than the correlation between the respective construct and other research constructs. Therefore, it can be stated that all research structures are valid from this point of view.
Table 3 - factor loading and T-statistics of indicators and research constructs

<table>
<thead>
<tr>
<th>T- Test</th>
<th>Factor</th>
<th>Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>load</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.07</td>
<td>0.90</td>
<td>Social Networks</td>
<td>Entrepreneurial network</td>
</tr>
<tr>
<td>2.99</td>
<td>0.55</td>
<td></td>
<td>Market network</td>
</tr>
<tr>
<td>7.30</td>
<td>0.74</td>
<td></td>
<td>Professional network</td>
</tr>
<tr>
<td>0.00</td>
<td>1.00</td>
<td>Family Support</td>
<td>Family support</td>
</tr>
<tr>
<td>11.78</td>
<td>0.96</td>
<td>Fubction</td>
<td>Export</td>
</tr>
</tbody>
</table>

Table number three also shows the factor loading and the value of the T statistic of the research dimensions. Chin (1999) states that the relationships between variables are significant when the absolute value of the coefficients is higher than 1.96. The factor loading of all indicators and constructs is greater than 0.5 and the value of T is greater than 1.96 (T>1.96).

4- Research findings

The data of the present research have been studied first in terms of demographic variables such as: age, gender and education. As table number four shows, the amount of entrepreneurship in different age groups is different. Since the population of Iran is young, therefore, the youth have a higher share in starting and carrying out the economic and social activities of the society. According to what is stated in table number four, the most age group involved in start-up entrepreneurship (34.1%) in Iran is the age group of 25 to 34 years. While only about 6% of the population of executive managers or start-up entrepreneurs in Iran are people in the age group of 55 to 64 years.

Table 4 - age of young entrepreneurs in Iran

<table>
<thead>
<tr>
<th>Cumulative percentage</th>
<th>Value Percentage</th>
<th>Percent</th>
<th>Frequency</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>14</td>
<td>13.3</td>
<td>18</td>
<td>24 ـ 35</td>
</tr>
<tr>
<td>49.6</td>
<td>35.7</td>
<td>34.1</td>
<td>46</td>
<td>34 ـ 45</td>
</tr>
<tr>
<td>80.6</td>
<td>31</td>
<td>29.6</td>
<td>40</td>
<td>44 ـ 55</td>
</tr>
<tr>
<td>93.8</td>
<td>13.2</td>
<td>12.6</td>
<td>17</td>
<td>54 ـ 64</td>
</tr>
<tr>
<td>100</td>
<td>6.2</td>
<td>5.9</td>
<td>8</td>
<td>64 ـ 75</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>95.6</td>
<td>129</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>6</td>
<td>Without answer</td>
<td>Total</td>
</tr>
</tbody>
</table>

16
Although entrepreneurship is an activity that is carried out by both women and men, regardless of the gender of individuals, nevertheless, gender differences are widespread in all dimensions of entrepreneurial activities (including entering the field of business, ownership, business growth and performance, access to financial resources, and networking) (Harrison and Mason, 2007). As table number five shows, there is a significant difference between the percentage of male and female entrepreneurs (executive managers) in Iran. While men make up 78.5% of the population of budding entrepreneurs, women account for only 21.5% of this population.

Another factor influencing people's entrepreneurship is their education. In general, specialized education and technical knowledge can be obtained mainly through the education system or the higher education system, as well as technical and professional education. Therefore, in table number six, the level of education of Iranian entrepreneurs has been studied in three educational groups: sub-diploma, diploma to bachelor's degree, and higher than bachelor's degree.

<table>
<thead>
<tr>
<th>Cumulative Percentage</th>
<th>Value Percentage</th>
<th>Frequency Percentage</th>
<th>Frequency</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.1</td>
<td>34.1</td>
<td>34.1</td>
<td>46</td>
<td>Under diploma</td>
</tr>
<tr>
<td>80.0</td>
<td>45.9</td>
<td>45.9</td>
<td>62</td>
<td>Diploma to Bachelor's Degree</td>
</tr>
<tr>
<td>100.0</td>
<td>20.0</td>
<td>20.0</td>
<td>27</td>
<td>Higher than Bachelor's Degree</td>
</tr>
<tr>
<td>100.0</td>
<td>100.0</td>
<td>135</td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

As table number five shows, the highest percentage (about 46%) of new entrepreneurs in Iran have diploma to bachelor's degrees. Also, 20% of young entrepreneurs in Iran have university education higher than bachelor's degree and have started entrepreneurship.

5- Discussion and conclusion

Entrepreneurship is a social phenomenon. Therefore, the social network of entrepreneurs plays a key role in the stages of setting up, establishing and even developing a business. According to the results of the factor analysis of the current research, the social network of Iranian entrepreneurs is mainly composed of three types of entrepreneurial network, market network and professional network, the average usage of which is equal to 1.08, 0.50, and 0.17, respectively.

As can be seen, entrepreneurs make the most use of the entrepreneurial network among the different dimensions that make up their social network. Considering that the entrepreneurial network consists of people who are either involved in starting a business in some way, or have previous experience and knowledge regarding issues related to different aspects of business, entrepreneurs seem to believe that this group provides them with more useful, relevant and up-to-date information.

In addition to the entrepreneurial network, the market network forms the social network of entrepreneurs with an average of 0.50. The importance of communication with business partners is manifested in the form of knowledge gained as a result of interactions with these people (Yung and Sexton1, 2003). Today, the type and nature of competition between businesses has changed, and due to the lack of human capital and financial capital, and the obstacles and problems of entering new markets, companies consider each other as their competitors, mainly. They prefer to cooperate with each other (Zali and Razavi, 2011). In fact, the concept of inter-organizational networks is proposed.
here, the positive effect of its use on business performance has been confirmed by previous researches (Soh2, 2003).

Among the constituent dimensions of the market network, the highest mean (0.30) of the network size is related to customers. The research of Zali and Razavi (2011) has shown that 23.2 percent of business managers-owners are in contact with their customers in order to develop new products and services. In fact, communication with customers enables business owners to innovate and offer newer products and services to the market by identifying their needs. The results of previous studies have also pointed to the existence of a significant relationship between the market network and the performance of businesses (Zali, Shat, Kurdaniij and Najafian, 2011).

Another dimension of the social network of entrepreneurs is receiving advice from experts including bankers, lawyers and accountants under the title of professional network. According to Jung and Sexton (2003), communicating with accountants, bankers, lawyers, insurance agencies, etc. to receive advice is one of the useful sources of information for entrepreneurs. Although communicating with the mentioned people increases the probability of access to the resources needed by entrepreneurs (including financial and informational resources), it seems that considering the fact that the information of these people, compared to the members of the market network and the entrepreneurial network in Regarding the different dimensions of business, market, customer needs and competition situation, they have the lowest average compared to other dimensions of the network.

Also, the results of structural equations show that the performance of businesses (exports and employment growth) is directly influenced by the social network of entrepreneurs to the extent of 28%. The results of the current research confirm the findings of previous researches regarding the effect of social networks on performance (Lee, Choei, and Lee, 2008; Hansen, 1995; Lee and Tiseng, 2001; Zali et al., 2011).

The findings of the research regarding the relationship between emotional support and business performance, obtained from the second hypothesis test, show that business performance is increased by the emotional and practical support received from the family, and between these Two variables, family support and performance, have a positive relationship. About 19% of the performance of start-up businesses is under the direct influence of the support of their family members. Previous researches also show that one of the intangible resources that help entrepreneurs in increasing their business performance is the support received from strong and kinship groups (Broderell and Preissendorfer, 1998).

Considering that the structure of Iranian families is such that family members consider themselves obliged to support each other, it is natural that people turn to their family members for support (Javidan and Dastmalchian, 2003). On the other hand, due to the fact that the level of trust between people in the society is low (Englehart and Welzel2, 2005), people prefer to turn to their close family and friends for support. In Iran, due to the strong family ties, support is mostly provided by the family. Therefore, it seems that due to the high quality of resources that are available to entrepreneurs through the family, the performance of their businesses will also increase.

The findings of the present research regarding the third sub-hypothesis show that the relationship between the social network of entrepreneurs and their business performance is modified by family support to the extent of 20%. In fact, receiving support from the family in Iran increases the intensity of the relationship between social network and business performance.

Iran has a high score in the cultural dimension of performance orientation, in the sense that positive results and performance and their improvement are highly encouraged and supported by other people (Javidan and Dastmalchian, 2003). On the other hand, as mentioned before, family ties are very strong in Iran and people are strongly influenced by their family values. Therefore, it seems that when the entrepreneur's family gives him financial and emotional support regarding the business advice he has
received from the members of his network, his decisions regarding his business will also be affected and subsequently its performance will improve.

References


