ABSTRACT

This study addresses the need for corporate entrepreneurship and its influencing factors in Iranian organizations. Potential usages of corporate entrepreneurship and influence of the studied factors in Iranian organizations are examined via a range of data sources. The primary data sources are survey questionnaire and interviews. In addition, literature review and relevant company documents provide a secondary data perspective. Besides the main questionnaire, supplementary interviews were conducted with executives from 25 manufacturing firms in different industries. The results show that while the Iranian organizations have recognized the need to implement corporate entrepreneurship, they have strategic plans for product entrepreneurship and production process entrepreneurship.

INTRODUCTION

Many entrepreneurs have a difficult time bridging the gap between science and the marketplace by creating new ventures. They may lack managerial skills, marketing capacity or financial resources. Their inventions are often unrealistic, requiring significant modification to be marketable. In addition, entrepreneurs frequently do not know how to interface with all the necessary entities, such as banks, suppliers, customers, venture capitalists, distributors, and advertising agencies. In spite of all these difficulties, entrepreneurship is presently the most effective way to bridge the gap between science and marketplace, creating new enterprises and bringing new products and services to the market. These entrepreneurial activities affect the economy of an area by building the economic base and providing jobs. Giving its impact on both the overall economy and the employment of an area, it is surprising that entrepreneurship has not become even more of a focal point in economic development.

Most enterprises potentially neglect when they consider ways to be creative and entrepreneurial, that is, they fail to engage the creativity of their workforce (Tan, 2003). Corporate entrepreneurship spans a continuum of possibilities, beginning with an R&D department, to involving only middle managers, to permeating the whole organization. Whatever the level or extent of the organization one wishes to engage in corporate entrepreneurship, there is a need to change organizational factors.
Certain factors have been identified by researchers as important for fostering corporate entrepreneurship. The most important are the attitudes of the intended employees. The proper attitudes toward corporate entrepreneurship will lead to objectives and subsequent actions. Other factors include organizational culture, practices, flexibility, and sponsorship of employee innovation projects. An organizational culture that results in creative entrepreneurship allows employees to remain with their projects, encourages communication across areas and levels of the firm, creates cross-functional teams, encourages decision making by all even at the lowest level of the organization, and permits project teams multiple options so that they are not confined to procurement from limited sources. It does not encourage risk aversion or conformity. Such organizations train and develop their workforces, encourage creative decision making, do not frown upon projects with small beginnings, and spread any innovation throughout the whole organization. There is flexibility in the operation of the teams and the organization sponsors projects. In his study of Singapore middle managers, Tan (2003) found that organizational culture, flexibility, and sponsorship influenced middle managers to become internal corporate entrepreneurs.

Many authors have continued to tout the importance of corporate entrepreneurship as a growth strategy and an effective means for achieving competitive advantage the literature has been, until recently, anecdotal and testimonial in nature. Indeed, Zahra (1991) observed a lack of compelling empirical evidence on the contributions of corporate entrepreneurship to organizational performance, factor that raised concerns that corporate entrepreneurship may become just another managerial fad. Even though some research has attempted to fill this gap in the literature, there is still much more to be learned about the substance and process of corporate entrepreneurship (Zahra et al, 2006).

Corporate entrepreneurship, also referred to as corporate venturing, or entreprenurship, has bee initiated in established organizations for purposes of profitability, strategic renewal fostering innovativeness, gaining knowledge for future revenue streams and international success. However, the concept of corporate entrepreneurship has been evolving over the last 25 years. Sathe (1989) defined corporate entrepreneurship as a process of organizational renewal. Other researchers have conceptualized corporate entrepreneurship as embodying entrepreneurial efforts that require organizational sanctions and resource commitments for the purpose of carrying out innovative activities in the form of product, process, and organizational innovations.

While the concept of corporate entrepreneurship may appear straightforward, several authors have concluded that it may take several forms. For instance, Schollhammer (1982) identified administrative, opportunistic, imitative, acquisitive, and incubative, as different forms of corporate entrepreneurial activities. Vesper (1984) developed three major definitions of corporate entrepreneurship, which he shortly identified as new strategic direction, initiative from below, and autonomous business creation. Vesper’s study shows that corporate entrepreneurship could be any of these individual types, as well as any or all-possible combinations (Hornsby et al. 2002).

This paper presents the results of a study on the current substantial need for corporation entrepreneurship in Iran and its influencing factors. A new outline is introduced for training the managers to prepare them for changes. The current status of entrepreneurship in Iran is first reviewed in detail. Following Hornsby et al (2002), the influencing factors are categorized into two main classes: supporting/assisting factors and structural factors. In the first category, the managerial support is considerably essential. Managers at all levels should support innovative staff and acknowledge their attributes in taking risks to develop new business ideas. In some extent, managerial support depends on a number of factors such as personal characteristics of the senior managers and the CEO, the intensity of funding for executing the plans, the acknowledgement of entrepreneurial behaviour by management, considering the importance of shared management, judging any unauthorized action fairly, appreciation of risk-takers in corporation, and decision making capability of senior managers.
Strategic awareness is another factor (in the first category) which develops in both individual and corporate levels in a comprehensive and predictive manner to provide a realistic insight of the corporation and its environment and leads to frequent innovations (Michalski, 2006). In addition, strategic management provides a ground for improving the staff manager interactions and leads to more innovation and creativity of the staff in corporation. Results of this process will increase the efficiency of corporation in long term and will create synergy in the society through different aspects.

The structural factors include the complexity of communications inside organization both in vertical and horizontal directions and high formality in relationships. The latter factor significantly decreases the possibility of any interactions by forming a gap between the corporation and its entrepreneurship goals. Indeed, there is an inverse relationship between complexity and corporate entrepreneurship. Generally speaking, a requirement for formal communications among staff and managers, called formality in this paper, decreases the freedom of staff and consequently reduces the possibility of creating new ideas.

Another structural influencing factor is the level of concentration of activities in corporation. Staff should be allowed to responsibly make decisions in their departments. This attribute would help the staff to plan and implement proper entrepreneurial actions. The content dimensions of corporations such as size and technology influence the level of concentration. In a larger corporation with more qualified experts, concentration can be prevented and responsibility can be spread out to a wider level.

Organizational culture is also another attribute studied in this paper and includes all common values, organizational behaviours, culture and codes of practice inside the corporation (Amo, 2006). If a corporation has an inappropriate culture and structure regarding entrepreneurial process, this process will hardly survive and operate in difficult conditions or crisis. The above influencing factors will be discussed in more detail.

The proposed outline for manager training and preparation of potential corporate entrepreneur and development of the outline (the research design, the methodology, sources of data and data collection instruments) are presented. The data sources include literature review, survey questionnaire, interviews and some relevant company documents. The primary sources are the questionnaire and interview results and the literature review gave a secondary data perspective on corporate entrepreneurship. The final section concludes this paper.

ENTREPRENEURSHIP IN IRAN

Current social and demographic patterns of Iran and its booming young generation who demand new job opportunities, and the instability of oil price are the main reasons driving the Iranian top policy makers to seek accessible resources other than oil and the most appropriate substitute is educated, smart and creative human resources. To boost their entrepreneurial processes in Iranian corporate environment, entrepreneurs need to receive supports and train entrepreneurial skills to recognize opportunities and be capable to analyse the environment and its ongoing changes. To ensure that this pattern performs adequately, corporate environment should provide an essential organizational structure including managerial support, supplying entrepreneurial planning and developing an efficient cultural environment inside the corporation. Table 1 lists some geographic, political, demographic and economic information about Iran.

Iran has attracted increasing international interest in recent years. Much of this attention has been in the wake of September 11, 2001 and the subsequent Bali, Madrid and London bombings and has principally been in the context of geopolitical concerns such as the “war against terror”. Nonetheless, Iran is an area of growing economic significance and offers investors and exporters many opportunities across many business sectors.
Table 1. Some information about Iran

<table>
<thead>
<tr>
<th>Geographical Location</th>
<th>Middle East, bordering the Gulf of Oman, the Persian Gulf, and the Caspian Sea, between Iraq and Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>1.648 Million km²</td>
</tr>
<tr>
<td>Area – Comparative</td>
<td>Slightly larger than Alaska</td>
</tr>
<tr>
<td>Caspian Coastline</td>
<td>Approximately 1000 km; Note: Iran also borders with the Caspian Sea (740 km)</td>
</tr>
<tr>
<td>Climate</td>
<td>Mostly arid or semiarid, subtropical along Caspian coast</td>
</tr>
<tr>
<td>Population</td>
<td>65,619,636 (July 2000 Estimate)</td>
</tr>
<tr>
<td>Languages</td>
<td>Persian and Persian dialects 58%, Turkic and Turkic dialects 26%, Kurdish 9%, Luri Arabic 1%, Turkish 1%, %12%, Balochi; other 2%</td>
</tr>
<tr>
<td>Capital</td>
<td>Tehran</td>
</tr>
<tr>
<td>GDP</td>
<td>Purchasing power parity - $504,2 billion (2004)</td>
</tr>
<tr>
<td>GDP - per capita</td>
<td>Purchasing power parity - $7,525 (2004)</td>
</tr>
<tr>
<td>Inflation rate (consumer prices)</td>
<td>30% (1999 Estimate)</td>
</tr>
<tr>
<td>Labour force</td>
<td>15.4 million</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>9.1% (1996 Estimate)</td>
</tr>
<tr>
<td>Exports</td>
<td>$12.2 billion (FOB, 1998 Estimate)</td>
</tr>
<tr>
<td>Imports</td>
<td>$13.8 billion (FOB, 1998 Estimate)</td>
</tr>
<tr>
<td>Currency</td>
<td>Iranian Rial (IR), 10 IR = 1 Toman</td>
</tr>
</tbody>
</table>

Though several oil rich resources have profited from their reserves, the potential likelihood of oil price declination implies that Iran needs to find new ways to generate income. Hence, the
policy makers would risk severe economic consequences if they do not develop new sources of revenue. Irrespective of such variations, there is a clear sense in which Iranians are culturally homogeneous, in being unified by Islam. Iran remains of significance to the Western world and international managers not only for its economic interests but also because it comprises a large proportion of the world’s Islamic people, who account for 20% of the world’s believers.

**Islamic political economy and its implications in Iran**

As aptly noticed by Meybullayev, "Islam is not only a religion, but also a scientific system to justify a socio-political, moral, spiritual and cultural behavioral code" (Aliyev, 2007). Unlike other religions, it has its own perspective in almost all spheres of an individual’s and societies’ lives. The peculiarities of an “Islamic approach” are its normative nature and ethic’s endogeneity. The former is related to the crucial role of Islamic law in all spheres, including economy and about the role of ethics in all kind of relations between actors. We may also conclude that the way embraces the former.

The principle of ethics endogeneity based on Muslim philosophy is proposed by the Islamic Political Economy (IPE) which could be derived from the following verse of Quran: “Verily, Allah does not change a people’s condition until they change what is in their inner selves”. This verse is commonly interpreted as:

> Political and social panaceas are ideological delusions, because true transformation of the world is possible only on an individual basis.

The classical Islamic idea of a perfect man is a key to understanding IPE’s approach to socioeconomic processes and relations. As a new epistemological basis, ethics endogeneity was first, in the modern social science, formulated and proposed by Masudul Alam Choudhury (1997). He argues that Islamic socio-economic analysis must be premised on an altogether new epistemology. The theoretical foundation of IPE emanates from the complete replacement of neo-classical idea of substitution and its later variations by the Principle of Universal. In IPE, there is no conflict and trade-off between economic growth and social justice.

**Advantages of corporate entrepreneurship in Iran**

Policy makers have recognized that creative entrepreneurship needs to be encouraged through appropriate policies that foster entrepreneurship, innovation, and technological development. Iran like some countries has introduced science parks in the hope that the provision of infrastructure will spark the development of high-tech ventures with new innovations and inventions that can become global products and services. Also, it can cause:

- Embracing creativity and innovation;
- An entrepreneur’s products or services can bring about business growth;
- Productivity improvement;
- Job and wealth creation;
- An enhanced image for the economy; and
- A better quality of life for all.
Mission and goals of corporate entrepreneurship in Iran

The *International Association of Iranian Management* (I-AIM) is a non-profit organization aimed at improving management knowledge, practice and skills in Iran and the Middle East region and also plays the most important role in implementing the missions of corporate entrepreneurship in Iran.

According to I-AIM Mission and Goals (2007) website, the main missions of I-AIM include:

- Enhancing the quality of education in management and entrepreneurship in Iran and the region, with a focus on developing young leaders of private sector enterprises;
- Providing a channel for managers outside of Iran to have a meaningful impact on the quality of management inside the country; and
- Providing opportunities for professional interaction between and among academics, practitioners and students in the field of management.

The activities of I-AIM are consistent with the following values:

- Excellent and professionalism in management practice;
- Building global networks of management professionals;
- High quality management education; and
- Supporting corporate social responsibility, accountability and transparency.

I-AIM pursues its mission through the following activities:

- Management and entrepreneurship education and research;
- Intensive management and entrepreneurship workshops;
- Seminars;
- Web-Seminars;
- Conferences;
- Journal publication; and
- Formalized networks for academics, management practitioners, entrepreneurs, venture capitalists and angel investors to connect through various online and face-to-face opportunities to build the foundations of graduate school in business and management.

**INTERNAL FACTORS INFLUENCING CORPORATE ENTREPRENEURSHIP**

The impact of corporate entrepreneurial activities on successful company performance has attracted research into the organizational factors that can promote these activities. Researchers have sought to identify some of the key variables that can affect a company’s pursuit of corporate entrepreneurship, including internal organizational factors such as: the company’s incentive and control systems, culture, work discretion, reward/reinforcement, time availability, organizational
boundaries, organizational structure and managerial support. Individually and in combination, these factors are believed to be important antecedents of corporate entrepreneurship efforts, because they affect the internal environment, which determines interest in and support of entrepreneurial initiatives within an established company.

The influencing factors are categorized in two main classes: supporting/assisting factors and structural factors. In the first category, the managerial support is considerably essential and in second one the factors like complexity of communications inside organizations, level of concentration of activities in corporation, size and technology of organization, organizational culture and etc are recognized. In this survey, we explain about some of these factors.

**Supporting/Assisting Factors**

Not only can managers stimulate interest in corporate entrepreneurship but they can also influence their subordinates’ commitment to these activities once they are initiated; this commitment is necessary for a company to benefit from corporate entrepreneurship activities. The most important roles of managers, especially middle managers, according to their duties in organization are listed here:

- Interacting with diverse employees, which would allow them to use formal and informal approaches to encourage innovation and calculated risk taking;
- Communicating their ideas for innovations to upper management;
- Creating an opportunity where these ideas are evaluated and considered within the context of the firm’s overall strategic priorities;
- Playing in informally encouraging employees to innovate and take risks;
- Providing political and organizational support for “skunk-work” activities that result in innovative ventures (Hornsby, 2002);
- Promoting autonomous or informal corporate entrepreneurial activities.
- Providing rewards that allow employees to experiment with, and explore the feasibility of, innovative ideas;
- Using different approaches to make the organizational structure less resistant to change thereby allowing corporate entrepreneurial activities to flourish;
- Playing pivotal roles in championing strategic alternatives and making them accessible to senior executives;
- Synthesizing and integrate information, thereby crystallizing the strategic issues facing the company and setting the stage for strategic change;
- Facilitating adaptability by altering the formal structure; and implementing the formal strategy and providing feedback;
- Play a key role in shaping their companies’ strategic agenda by influencing the types and intensity of corporate entrepreneurial activities;
- Gather innovation ideas from within and outside the firm;
Work with vendors, observe the market and analyse the competition;

- Become aware of innovation efforts initiated by vendors and competitors; and

- Transfer this knowledge to others in their company.

As a whole within this overall corporate environment, certain individual characteristics have been identified that constitute a successful entrepreneur. Table 2 lists the most important characteristics of entrepreneurial leaders (Hisrich et al, 2006).

Table 2. Essential characteristics of entrepreneurial leaders (Hisrich et al, 2006).

<table>
<thead>
<tr>
<th>Entrepreneurial Leadership Characteristics</th>
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Structural Factors

Commitment of resources: An entrepreneur is used to having resources committed at periodic intervals that are often based on certain tasks or objectives being reached. These resources often required from others are usually difficult to obtain, forcing the entrepreneur to achieve significant milestones using very few resources. This multistage commitment allows the resource providers to have as small an exposure as possible at each stage of business development and to constantly monitor the track record being established. Even though the funding may also be implemented in stages in the administratively domain, the commitment of the resources is for the total amount needed. Administratively oriented individuals respond to the source of the rewards offered and receive personal rewards by effectively administering the resources under their control (Kane, 2007).

Entrepreneurial Culture: The traditional corporate culture differs significantly from an entrepreneurial culture. The guiding directives in a traditional corporate culture are as follows:
Adhere to the instruction given, do not make any mistakes, do not fail, do not take the initiative but wait for instructions, and say within your turf and protect your backside. This restrictive environment is of course not conduct to creativity, flexibility, independence, or risk taking (Hisrich et al., 2002). The goals of an entrepreneurial culture are quite different: to develop visions, goals, and action plans, to be rewarded for action taken, to suggest, try and experiment, to create and develop regardless of the area and to take responsibility and ownership. Instead of a hierarchical structure an entrepreneurial climate has a flat organizational structure with networking, teamwork, sponsors, and mentors abounding. Close working relationship help establish an atmosphere of trust and counsel that facilitates the accomplishment of visions and objectives. Tasks are viewed as fun events, not chores, with participants gladly putting in the number of hours necessary to get the job done. Instead of building buries to protect turfs, individuals make suggestion within and across functional areas and divisions, resulting in a cross-fertilization of ideas. The role of managers’ perception of the internal environment and other organizational factors for corporate entrepreneurship are depicted in the diagram shown in Figure 1.

Figure 1. The role of managers’ perception of the internal environment and other organizational factors for corporate entrepreneurship.

**Some factors influencing corporate entrepreneurship in Iran**

It is important for governments, trade associations, and other stakeholders to assist entrepreneurs in sharpening their skills in management and leadership qualities and to provide the necessary tools to identify opportunities (Daryani, 2007, Ghosh, 2006). They often provide the external impetus and staff experience that lead to productive changes in management processes to facilitate the creation of new products and services. Their suggested main roles are discussed as follows.

*Networking*: Networks should be encouraged as means for the exchange of ideas. Alumni, trade, or industrial bodies and societies, and informal business contacts could provide a good platform for like-minded and complementary businesspeople to interact, exchange best practices, and possibly ignite technology transfers among enterprises. Networks can facilitate the rapid dissemination of knowledge and know-how. In addition, trade or industrial bodies and societies can be screening agents for good business matchmaking opportunities for businesses, thus enhancing the ability of businesses to collaborate.
**Government Policies:** Governments could assist in providing conducive environments for the creation of innovation and the adoption of technology. In many countries, governments could provide technology upgrading incentive schemes and financing schemes to ease cash flows or increase capital for R&D activities within enterprises. Governments may pass laws or guidelines to protect SMEs from intellectual property rights abuses. This will encourage small businesses to innovate and reinvent. The main objective of government policies on these issues is a substantial net increase in the level of high-quality R&D in enterprises and to ensure an integrated and unified approach to research-related activities. These should cover industrial R&D, process development and innovation, and technology acquisition.

**Communication:** Organizations should be encouraged to promote open channels of communication among all levels of management so that no ideas are brushed aside. Stakeholders could play a significant role in the provision of information and intelligence to enterprises. For example, industrial associations could provide regular updates on changes in government policies and new incentive schemes to enterprises. This would make it easier for enterprise decision makers to utilize government incentive schemes.

**Incubators and Mentors:** Incubators run by universities and research groups could assist businesses, especially SMEs, to grow in a conducive environment. Researchers, specialists, and consultants should be available to enterprises being incubated. The credibility of the "host" could lend weight to the tenants, thus attracting better funding from the government or business "angels" (Daryani, 2007). Access to R&D facilities is the main advantage for promising SMEs to be based in incubators. Mentors lend their experience to the incubating enterprises and guide them through potentially disruptive innovation.

**Education:** Educational institutions could provide the technical know-how and innovation process management skills to senior managers in corporations. Studies have also shown that general education can enhance innovation. The adoption of technologies is more rapid in countries with higher literacy rates (Bagherianejad, 2006). Thus education and academic institutions can play a significant role in the adoption of technology and innovation creation in an economy. Business plan competitions, which incorporate technology adoption and innovation, are a good opportunity to start young would-be entrepreneurs thinking about innovation at an early age.

**RESEARCH DESIGN, METHODOLOGY, DATA SOURCES AND COLLECTION**

The process of corporate entrepreneurship at the firm level depends upon a number of inter-related factors which range across all sections of a firm and is strongly influenced by the interplay of many components in the firm’s external environment. In this respect, the major focus of this study was to analyse the influence of various factors on cultivating entrepreneurship activities within some firms. The main factors, which enable firms to adopt and implement entrepreneurship, has been developed and tested by this research. This model shows how corporate entrepreneurship behaviour is influenced by three elements: the firm-specific characteristics, its external relationships and its environmental including the impact of national and international factors.

- **Firm-specific characteristics:** This refers to the most important determinants that explicitly influence the firm’s corporate entrepreneurship behaviour. These are a combination of factors including firm’s contextual variables, Managerial and Employment Structures, Organizational Structure, Technological Infrastructure and Staff-Skill Development. For example, the firm’s contextual variables, here, refer to its ownership structure, size, production location, age, experience and its industrial sector.

- **Firm’s external relationships:** These include relationships and technical feedback with/to other firms, institutes, organizations, customers and agents.
Firm’s environmental factors: This situation points to the factors, which indirectly influence corporate entrepreneurship process of the industrial sector. In this research, the effects of government policies and the role of financial systems as initiatives for cultivating entrepreneurship activities are explored.

As a result, the relationship between the firm characteristics and other effective factors on corporate entrepreneurship in a company can be explained in the diagram shown in Figure 2.

It is perceived that multiple data sources can enrich a research. The data sources for this study were the literature review, the survey questionnaire, the interviews and all related company documents. The questionnaire and interview were the primary data sources, whereas the literature review gave a secondary data perspective on corporate entrepreneurship at the firm and national levels. In addition, the data on corporate entrepreneurship activities in the Iranian Ministry of Industries and of the records of several sample firms and published and unpublished data from relevant organizations, such as the Ministry of Commerce, Management and Planning Organization (Planning and Budget Organization), Statistical Centre and Export Promotion Centre provided a rich source of secondary data.

![Figure 2. The relationship between the firm characteristics and other effective factors on corporate entrepreneurship in a company](image)

The questionnaire, as the main tool for data collection, on the basis of the literature review, was designed in English and discussed with several experts. Then, it was modified and translated into Farsi (Persian), the formal language of Iran. In parallel, several letters were sent to officials and professionals in the production and academic sectors of Iran. These letters mentioned the research objectives and asked for the cooperation of these agents during the pilot study and during the administration of questionnaire and ensuing interviews. Both English and Farsi versions of the questionnaire were sent to 20 executives, industrial managers, officials and agents who were experienced in both the industrial and the academic sectors in Tehran. The objectives of the research and the time limitations were also brought to their attention and they were requested to...
give their opinions of the questionnaire in a short period. This pilot test served a number of purposes. It identified unforeseen problems in the precise wording of the questionnaire, the sequencing of questions and the level of comprehension of the respondents. This feedback helped to finalize the questionnaire and to ensure its style and wording met Iranian conditions.

Besides the main questionnaire, supplementary interviews were conducted with executives from 25 manufacturing firms in different industries. During these interviews, the questionnaire was reviewed with the respondents to make sure that they had understood the questions well and that they had provided complete answers. In some of these interviews, the researcher had the opportunity to visit the firm’s production plants. The interviews were also useful in the sense that they allowed the researcher to collect more in-depth information and to capture a detailed insight of the general opinion regarding Iranian industrial entrepreneurship activities. In addition, several structured interviews were conducted with industrial officials and academic professionals. These helped the researcher to gain specific knowledge about the promotion of technological innovation as well as the relevant role that the academic sectors can play in Iran.

Table 3. Dependent variables, measurements and measurement levels in this study.

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Measurements</th>
<th>Measurement levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product entrepreneurship</td>
<td>Having any improved new product during the last five year</td>
<td>Nominal</td>
</tr>
<tr>
<td>Production process entrepreneurship</td>
<td>Doing any major changes during the last five years</td>
<td>Nominal</td>
</tr>
<tr>
<td>Product entrepreneurship</td>
<td>The number of new products during the last five year</td>
<td>Interval</td>
</tr>
<tr>
<td>Production process entrepreneurship</td>
<td>The number of major changes during the last five year</td>
<td>Interval</td>
</tr>
<tr>
<td>Product entrepreneurship</td>
<td>The number of new products per employee per year</td>
<td>Interval adopted</td>
</tr>
<tr>
<td>Production process entrepreneurship</td>
<td>The number of major changes per employee per year</td>
<td>Interval adopted</td>
</tr>
</tbody>
</table>

**Designation of the model variables and their measurements**

In this study, the number of improved and new products or processes per employee per year for the economy, which the firm implemented over a period of time (five years) have been used as measures of entrepreneurship. These were considered as the Dependent Variables. In this regard, two different questions were asked in the questionnaire, to discern the innovativeness of the firms. The first asked whether or not they had made any entrepreneurial activities whatsoever and the
second asked for their number. In each case, the questions related to the past five years and to product and process entrepreneurial work separately. Details of variables, measurements defined for each variable and their levels are listed in Table 3.

CONCLUSIONS

This study reviewed the different factors influencing the entrepreneurship and corporate entrepreneurship and also discussed the need for corporate entrepreneurship in different organizations in Iran. The paper contributes to the literature of corporate entrepreneurship by documenting the existence of an underlying set of some stable organizational factors that should be recognized in promoting entrepreneurial activities within an organization. Each factor is titled based on their comprising items. The factors covered are: management support, rewards/reinforcement, time availability, entrepreneurial culture, commitment of resources and organizational boundaries.

Potential usages of entrepreneurship and especially corporate entrepreneurship and their benefits as well as the factors influencing the success of corporate entrepreneurship in Iranian organizations are studied via a range of data sources to propose methods of creating or improving this impetus force.

The data sources for this study were the literature review, the survey questionnaire, the interviews and all related company documents. The questionnaire and interview were the primary data sources, whereas the literature review gave a secondary data perspective on corporate entrepreneurship at the firm and national levels. Besides the main questionnaire, supplementary interviews were conducted with executives from 25 manufacturing firms in different industries.

The results of interviews, questionnaire, and analysis of other data sources show that the Iranian organizations have recognized a vital need to promote and implement corporate entrepreneurship. Although they have not been sufficiently successful in this area, they have strategic plans to promote and implement product entrepreneurship and production process entrepreneurship in terms of the number of major changes and improved new products per five years and per employee per year.

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