Identification of Structural Restricting and Driving Factors of Development of Corporate Entrepreneurship (CE): A Case Study

Sepideh Firouzyar*, Dr. Davood Kia Kojouri**

Abstract

Tourism and entrepreneurship have progressed on different paths and rarely have any major crossover occurred in each of their literatures to cross-fertilize the development of the subject areas. The tourism industry is often said to be less innovative than other industries. In order to make the organization more entrepreneur friendly and therefore innovative, driving and restricting factors need to be identified, improved and reinforced. This paper presents the identification of structural restricting and driving factors of development of Corporate Entrepreneurship (CE) in organization. The studied organization is one of the transportation companies in Iran. A questionnaire was designed according to the Likert Scale. The sampling has been done through census among 100 managers of the studied organization. By using SPSS software and analyzing the outcome of the questionnaires, restricting and driving factors are recognized. This study concludes that five factors such as information resource system, organizational structure, organizational strategy, task methodology, and process and physical opportunities are driving factors. The research and development system, control and supervisionary system, wage and salary system, finance and budget system and human resource management are counted as restricting factors.

Key words: Tourism Management, Organizational entrepreneurship, Restricting factors, Driving factor.

^{*} MSc Tourism Management, Maziyar University, Mazandaran, Iran

^{**} Assistant Professor, Islamic Azad University, Chalous, Iran

1. Introduction

These days environmental and competitive conditions are dynamic and complicated, so companies have to find logical solutions to survive. Due to the globalization and converting industrial society to that of the technological ones, companies cannot compete with small and medium-sized enterprises (SMEs) that are flexible and innovative. In order to maintain their growth and existence, most of the organizations are in serious need of innovation and find new opportunities (Dehnad and Mobaraki, 2010). Tourism and entrepreneurship have progressed on different paths and rarely has any major crossover occurred in each of their literatures to cross-fertilize the development of the subject areas (Ateljevic, 2009). Thus in this paper the relationship between tourism and entrepreneurship is analyzed.

The entrepreneurial function implies the discovery, assessment and exploitation of opportunities, in other words, new products, services or production processes, new strategies and organizational forms, new markets for products, and inputs that did not previously exist (Shane and Venkataraman, 2000). Entrepreneurship is a complex phenomenon with many definitions. Landsrom (2000) describes entrepreneurship as discovering new business possibilities, organizing necessary resources and exploiting the business possibilities on the market. Today the pace of changes is increasing dramatically in the society and accordingly, entrepreneurship is becoming more important for the development of societies. The society needs to develop both bigger and smaller businesses, old and new, to create conditions for the constantly present entrepreneurship that makes it possible for businesses to survive and develop in an unpredictable world (Mjornvik et al.,2008).

Tourism industry plays important role in business development in few past years (Bagherifard et al, 2013). The travel and tourism industry is the world's largest and most diverse industry. Many nations rely on this dynamic industry as a primary source for generating revenues, employment, private sector growth and infrastructure development (Gee and Fayos-Solá, 1997). Tourism development provides an avenue for overall economic development and a boost for local entrepreneurship (Ateljevic, 2009).

The main objective of this research is identifying structural restricting and driving factors of development of Corporate Entrepreneurship (CE) in an

organization. Therefore, the research question is defined as below: "What are the restricting and driving factors of development of CE in an organization?". This paper explains concepts of tourism, organizational entrepreneurship and restricting and driving factors. After literature review, the conceptual model is shown, and data analysis is presented, followed by discussion and conclusion.

2. Literature review

Corporate entrepreneurship is a process, which occurs in interaction with the environment. It appears that the environment plays a profound role in influencing corporate entrepreneurship: the more dynamic, hostile and heterogeneous the environment, more emphasis the company puts on entrepreneurial activities. The corporate entrepreneurship literature highlights the importance of organizational factors for the pursuit of entrepreneurship in organizations (Heinonen and Korvela, 2003).

Literature indicates that a number of environmental factors present in organizations implementing corporate entrepreneurial concepts. Three initial factor descriptions are offered as fostering entrepreneurial activity inside corporations: (i) management support for corporate entrepreneurship, (ii) organizational structure, and (iii) resource availability. The empirical evidence supports the need for structure associated with entrepreneuring in various organizations, and validates corporate entrepreneurship as an important means for changing individual perceptions about the work environment (Kuratko et al., 1990). In another study, Antoncic and Hisrich (2001) mention that while differing somewhat in their emphasis, activities and orientations, the four dimensions of corporate entrepreneurship—New business venturing, Innovativeness, Self-renewal, Proactiveness- are factors of Schumpeterian innovation, the building block of entrepreneurship.

Covin and Slevin (1991) pointed out that internal organizational factors play crucial role in fostering corporate entrepreneurship. Many researchers have provided empirical evidence for the importance of these factors that include: company's organizational structure, incentive and control system, managerial support and resources, and organization boundary (Tanha et al.,

2011; Gupta and Srivastava, 2013). Hornsby et al. (2002) pointed out that at least five internal factors are necessary in order to foster middle managers' activity, which are as follows: an appropriate use of rewards, gaining top management support, a supportive organizational structure, risk taking and tolerance for failure and finally, resource availability. Kuratko et al. (1990) also highlighted top management support, reward and resource availability, organizational structure and boundaries, risk taking and time availability as key internal factors able to enhance and support corporate entrepreneurship (Gupta and Srivastava, 2013).

Aghaee et al. (2010) found that performance evaluating system, mechanical organizational structure, payments and rewards systems, research and development system and budgeting and financial system are the main obstacles. The best solutions are performance based payment system, creating finance supportive departments, designing demand based research and development system, designing entrepreneurial organizational structure system and compiling opportunity based strategy for organizational entrepreneurship development in Iran National Petrochemical Company (NPC).

In another research, Dehnad and Mobaraki (2010) attempt to introduce the concept of corporate entrepreneurship and explain the organizational behavior factors as the most effective factors in the development of corporate entrepreneurship. The research results indicate that from the perspectives of Homa managers at various organizational units, there is a variety of hindering and encouraging behavioral factors influential in the development of corporate entrepreneurship. Lack of adequate planning and staff partnership in the outcome of their creative actions, the organization's inclination to functional management and employees' proficiencies are classified as the restraining forces; the driving factors include the organization's support from creativity and innovation, performance-based bonuses in the organization, risk culture, the organization's inclination to multiple-skilled employees, teamwork culture, and the creation of common goals and values as well as strengthening them. These findings were partially supported by other researchers (e.g. see Moghimi, 2004).

In sum, researchers have used different terms to refer to the "entrepreneurship inside an existing company" phenomenon. Terms such as Entrepreneurship, Corporate Entrepreneurship and Corporate Venturing have been used to describe essentially the same phenomena (Quesada et al., 2011). Although, to date there is only limited empirical evidence about the factors promoting entrepreneurship rather than corporate entrepreneurship (Parker, 2009), some main research works were mentioned above, based on which this study was shaped.

3. Conceptual Framework and Hypothesis

CE activities enhance a company's success by promoting product and process innovations (Zahra et al,1999). It is brought into practice as a tool for business development, revenue growth, profitability enhancement, pioneering the development of new products and services and processes (Kuratko, Montagno, and Hornsby, 1990; Zahra, 1991; Zahra & Covin, 1995; Lumpkin & Dess, 1996; Zahra, Jennings, and Kuratko, 1999; Miles & Covin, 2002). These CE activities can improve organizational growth and profitability and, depending on the company's competitive environment, their impact may increase over time (Zahra et al,1999).

Lober (1998) believes that the three factors below cause development of organizational entreprenurship: (i) Internal organizational factors, (ii) External environmental factors, and (iii) Individual characteristics (Moghimi, 2004). Internal organizational factors can be categorized as behaviorial and structural factors. According to the literature review, theotherical background of the conceptual model is shown in Figure 1. Descriptions of the variables have been mentioned in the Appendix.



Figure 1: Conceptual model

4. Methods and Data Analysis

The data of this research was gathered from the senior managers of an organization which is activly working in the tourism industry for more than 50 years. Due to the limited number of managers, the census method was used. Research variables were identified from the literature review, and study of the relevant documents. For the data gathering phase, a question-naire was designed. The questionnaire is designed based on Cornwall and Perlman's (1990) questionnaire and other questionnaires in organizational entrepreneurship. The questionnaire was designed according to the Likret scale (1-5). Managers of the firm which was analyzed, were asked to fill in the questionnaire. The gathered data was then analyzed using SPSS software. Therefore, t test and Friedman test were used for testing the research hypotheses, and to rank them. In this research coefficient, Cronbach's (alpha) is calculated by SPSS software and it is 0.968 based on a randomlly selected sample of 30 questionnaire.

Demographic analysis shows that 66% of managers are male and 33% of them are female while 87.9% are below 50 years old and 21.1% are over 50 years old. Data analysis also indicates that 1% of the pepole who have filled out the questionnaires have associate diplomas and 4% have PhDs and the rest have either a BA or an MA. About 50% of the respondents are over 20 years and 30% have more than 25 years of work experience.

T-test was used to identify the driving and restricting factor, and Friedman test to rank them from the most driving to the least driving or in other words, to the most restricting one. So, null and alternative hypothesis are defined as below:

$$\begin{cases} H_0: \mu = 3 \\ H_1: \mu \neq 3 \end{cases}$$

 H_0 : The structural factors are a part of the driving factors in this survey.

Table 1: Result of t-test

	Test Value = 3					
	T	DF	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Organizational structure	0.952	99	0.344	0.05959	-0.0647	0.1839
Information System	3.121	99	0.002	0.21000	0.0765	0.3435
Organizational Strategy	0.208	99	0.835	0.01583	-0.1349	0.1665
R & D	-3.333	99	0.001	-0.22111	-0.3527	-0.0895
Task Methodology and Process	-0.229	99	0.820	-0.02000	-0.1936	0.1536
Control and Supervision System	-3.922	99	0.000	-0.31200	-0.4699	-0.1541
Human Resource System	-2.358	99	0.020	-0.18405	-0.3389	-0.0292
Financial System	-2.981	99	0.004	-0.20482	-0.3412	-0.0685
Wage and salary system	-3.044	99	0.003	-0.21833	-0.3606	-0.0760
Physical opportunity	1.864	99	0.065	-0.31120	-0.4869	-0.1631

According to the results in the Table 1, all of the factors is normally distributed. Based on the Student T-Test, the zero hypothesis should be accepted for the four factors, organizational structure, organizational strategy, task methodology and process, physical opportunities. However, zero hypothesis should be rejected for other factors, information system, research and development, control and supervision system, human resource system, wage and salary system.

According to the figures presented in Table 1, structural driving factors of development of corporate entrepreneurship includes the system of information resources, organizational structure, organizational strategy, task methodology and process, physical opportunities. However, the restricting factors consist of research and development system, control and supervisionary system, wage and salary system, finance and budget system are all human resource management.

After classifying the factors to driving and restricting factors, Friedman test is used to rank the factors from the most driving to the most restricting factors. In the Friedman test, \mathbf{H}_0 is defined by the similarity between the averages ranking among the factors. Rejection of \mathbf{H}_0 means there are at least two factors that are inconsistent with the average. Table 2 ranks the factors from the most driving to the most restricting ones; information resource system is most driving factor and, control and supervision system is the most restricting factor.

Table 2- Mean Rank between variables

Variables	Mean Rank
Information resource system	6.98
Physical Opportunities	6.45
Organizational structure	6.21
Organizational Strategy	6.06
Task Methodology and Process	5.86
Research and Development System	5.03
Wage and Salary System	4.84
Financial System	4.62
Human Resource System	4.55
Control and Supervision System	4.42

5. Discussion and Conclusion

Research titled "Relation between organizational structure and organizational entrepreneurship (Case study: manufacturing companies in the west of Mazandaran province)", shows that there is a significant relationship between organizational structure and organizational entrepreneurship. In addition, it shows that there is a significant relationship between organic organizational structure and organizational entrepreneurship, and between mechanic organizational structure and organizational entrepreneurship (Ooshaksaraie et a.l, 2011). Research titled "consideration of the obstacles and structural ways in the organizational entrepreneurship development in National Petrochemical Company (NPC) in Tehran: a research based in Q-Methodology" concludes that performance evaluating system, mechanical organizational structure, payments and rewards systems, research and development system, and budgeting and financial system are the main obstacles (Aghaee and et al, 2010).

Another research indicates that from the perspectives of Homa managers at various organizational units, there is a variety of hindering and encouraging behavioral factors influential in development of corporate entrepreneurship. Lack of adequate planning and staff partnership in the outcome of their creative actions, the organization's inclination to functional management and employees' proficiencies are classified as the restraining forces. Driving factors, on the other hand, are the organization's support from creativity and innovation, performance-based bonuses in the organization, risk culture, the organization's inclination to multiple-skilled employees, teamwork culture, and the creation of common goals and values (Dehnad and Mobaraki, 2010). Result of research titled "recognition of structural factors on college entrepreneurial development" shows that organizational factors are most important and assessment system factors have least importance (Yadolahi et al, 2011).

Based on the findings, organizational structure is part of the driving factors in this survey. Moreover, based on the description of organizational structure, one can conclude that structure of an organization is flexible and adaptable. In other words, it has organic structure. This means that it helps the organization to have the organizational entrepreneurship. Moreover, the information system factor is an advancing factor. Moreover, based on the

description of the information system, one can conclude that the information system of organization is up-to-date and information is accessible for the right person at the right time. This means that it helps the organization to have the organizational entrepreneurship. This is supported by previous research (e.g. see Heinonen and Korvela, 2003; Gupta and Srivastava, 2013).

On the other hand, the organizational strategy is part of the driving factors in this survey. Moreover, based on the description of the organizational strategy, one can conclude that the strategy of organization can identify new opportunities and threats or internal strengths and weakness. It also can assign a valuable mission. This means that it helps the organization to have the organizational entrepreneurship. Therefore, task methodology and process is part of the driving factors in this survey. Moreover, based on the description of task methodology and process, one can conclude that task methodology and process of organization is evaluated regularly. In other words, it has entrepreneurial process. This means that it helps the organization to have the organizational entrepreneurship. Also, the R&D system factor is a restricting factor. Moreover, based on the description of R&D system, one can conclude that R&D system of organization is not up-to-date. It shows entrepreneurs are not distributed in all sectors, managers do not pay attention to R&D. This means that it should reinforce to help the organization to have the organizational entrepreneurship. These findings are in line with previous works (see Kuratko et al., 1990; Aghaee et al., 2010)

In addition, the control and supervision system factor is a restricting factor. Moreover, based on the description of control and supervision system, one can conclude that control and supervision system of organization is not flexible. It shows controlling, rules, regulations and policies are much more than usual. This means that it should reinforce to help the organization to have the organizational entrepreneurship. Also, the human resource system factor is a restricting factor. Moreover, based on the description of human resource system, one can conclude that human resource system of organization is not entrepreneurial. It shows managers do not recruit based on meritocracy and fixed policy does not exist for recruitment. This means that it should reinforce to help the organization to have the organizational entrepreneurship (see Antoncic and Hisrich, 2001; Gupta and Srivastava, 2013).

Furthermore, the financial system factor is a restricting factor. Moreover, based on the description of financial system, one can conclude that financial system of organization is not entrepreneurial. It shows the firm's financial performance in the short term. This means that it should reinforce to help the organization to have the organizational entrepreneurship. Also, the wage and salary system factor is a restricting factor. Moreover, based on the description of wage and salary system, one can conclude that wage and salary system of organization is not flexible. It shows payment is not based on risk-ability and innovation of the workers, it is just based on the physical presence. This means that it should change their system to have the organizational entrepreneurship. In addition, physical opportunities are part of the driving factors in this survey. Moreover, based on the description of physical opportunities, one can conclude that physical opportunities of organization help the organization to have organizational entrepreneurship (Kuratko et al., 1990; Gupta and Srivastava, 2013).

In sum, the current research shows that Task Methodology and Process, Information system, Organizational structure, Organizational strategy and Physical Opportunities are driving factors while Research and Development system, Control and Supervision System, Human Resource System, Financial System and Wage and Salary System are restricting factors. Indeed, entrepreneurship has a vital role in all activities in the organization. Since in all the third world counties, the government has a vast participation in all the economic, social and cultural aspects, changing the structure of organizations from traditional and bureaucratic to entrepreneurial ones has high importance. This research indicates that different variables in the form of structural factors deeply affect and influence organizational entrepreneurship development. In addition, driving and restricting factors are identified by concentrating on different factors of organizational structure. The results of this research show that five factors of information system, organizational structure, organizational strategy, task methodology and process, physical opportunities are driving factors while R&D system, control and supervision system, wage and salary system, financial system, human resource system are restricting factors. Therefore, by establishing necessary background and with improving driving factors and reinforcement of restricting factors, one can contribute to the development of entrepreneurship in the studied organization.

6. Suggestions and recommendations

With the help of previous researchers below and from what is derived in this research, here are the authors' suggestions for restricting factors:

For developing Research and Development System it is suggested to: (i) Balance between fundamental and applied research, (ii) Considering long term rather than short term results, (iii) Select the projects based on clients and employees recommendations, (iv) Create new ideas through establishing R&D department to increase the satisfaction of clients. For the enhancement of Control and Supervision factor, the following are suggested: (i) Modification of control criteria to the number of novel ideas that officially have been accepted in the organization, (ii) Taking necessary actions in order to promote clarification in the organization, (iii) Annual evaluation of the organizational operations with the view to considering weaknesses and strengths of the organization.

For the enhancement of the human resource system, it is recommended that: (i) All directors should be chosen based on meritocracy in a unified method, (ii) Establishment of a fixed policy for employment and recruitment, (iii) Test administration for choosing qualified employees and corresponding the field of study and their specialty with the offered positions. For the enhancement of the finance and budget system, the following are suggested: (i) Budgeting in the organization based on the plans and programs, (ii) Distribution of financial resources among different units in the organization based on the priority of the programs, and (iii) Expediting financial resource allocations. For the enhancement of wage and salary systems, it is suggested that payments and salaries should be considered based on employees operation and creativities.

References

- Antoncic, B., Hisrich, R. D. (2001), "Intrapreneurship: Construct refinement and cross-cultural validation", Journal of Business Venturing, *16*(5), pp. 495-527.
- Atashi, A., Abdolpour, R. (2012), "Electronic Human Resources Management; Enabler of Innovation in Organization", Journal of American Science, 8(9), pp. 582-591.
- Ateljevic, J., Stephen, J. (2009), *Tourism and Entrepreneurship International Perspective*, Elsevier LTD.
- Bagherifard, S. M., Jalali, M., Jalali, F., Khalili, P., & Sharifi, S. (2013), *Tourism Entrepreneurship Challenges and Opportunities in Mazandaran*, Journal of Basic and Applied Scientific Research, 3(4), pp. 842-846.
- Behn, R.D. (1991), Leadership counts: Lessons for Public Managers from the Massachusetts Welfare, Training, and Employment Program. Cambridge, MA: Harvard University Press.
- Birch, D.L. (1987), Job Creation in America: How our smallest companies put the most people to work. New York: Free Press.
- Beijerse, R.P. (2000), "Knowledge Management in Small and Medium-sized Companies: Knowledge Management for Entrepreneurs", Journal of Knowledge Management, 4(2), pp. 162-179.
 - Cornwall, J., Perlmn, B. (1990), Organizational Entrepreneurship, Richard Irwin.
- Covin, J.G., Slevin. D. P. (1991), "A Conceptual Model of Entrepreneurship as Firm Behavior", Entrepreneurship Theory and Practice, 16(1), pp. 7-25.
- Dehnad, R., Mobaraki, M.S. (2010), *Identification of behavioral Restricting and Driving Factor of Development of Corporate Entrepreneurship (CE) Case Study: Iran Air*, MA Thesis, Tehran University.
- Egorov, Igor, Carayannis, Elias G. (1999), "Transforming the post-soviet research systems through incubating technological entrepreneurship", Journal of Technology Transfer, 24(2/3), pp.159-172.
- Gee, C. Y., Fayos-Solá, E. (1997), *International Tourism: A Global Perspective*, Madrid: World Tourism Organization.
- Gupta, A., Srivastava, N. (2013), "An Exploratory Study Of Factors Affecting Intrapreneurship, International Journal of Innovative Research and Development, 2(8), pp. 1-8.

- Kuratko, D., Montagno, R. V., & Hornsby, J. (1990), "Developing an Entrepreneurial Assessment Instrument for an Effective Corporate Entrepreneurial Environment", Strategic Management Journal, 11, pp. 49-58.
- Hashemi, K. (2012), "Key Strategic Steps in Setting a Business; A Review of Some Basic Entrepreneurial Facts", Journal of American Science, 8(2), pp. 551-553.
- Gupta, A., Srivastava, N. (2013), "An Exploratory Study Of Factors Affecting Intrapreneurship", International Journal of Innovative Research and Development. 2(8), pp. 1-8.
- Hayton, J. (2005), "Promoting Corporate Entrepreneurship through Human Resource Management Practices: A Review of Empirical Research", Human Resource Management Review, 15(1), pp. 21-41.
- Heinonen, J., Korvela, K. (2003), How about Measuring Intrapreneurship?, In Conference Proceedings of 33rd EISB (Entrepreneurship, Innovation and Small Business) Conference in Milan, Italy.
- Hornsby, J.S., D.F. Kuratko & Zahra. S.A. (2002), "Middle Managers' Perception of the Internal Environment for Corporate Entrepreneurship: Assessing a Measurement Scale", Journal of business Venturing, *17*(3), pp. 253-273.
- Kuratko, D.F., Montagno, R.V., & Hornsby, J.S. (1990), "Developing an Entrepreneurial Assessment Instrument for an Effective Corporate Entrepreneurial Environment", Strategic Management Journal, 11, pp. 49-58.
- Lumpkin, G. T. Dess, G. G (1996), "Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance", Academy of Management Review, 21(1), pp. 135-172.
- Miles, M.B., Covin, J.G. (2002), "Exploring the Practice of Corporate Venturing: Some Common Forms and their Organizational Implications", Entrepreneurship: Theory & Practice, 26(3), pp. 21-40.
- Mjornvik, J. & Sanfridsson, M., & Dergard, J. (2008), Management Control System Entrepreneurship in Lusaka: A Minor Field Study in Zambia, Master's Thesis, Handelshogskolan Vid Goteborgs University.
- Moghimi, S. M. (2006), "Corporate Entrepreneurship: Obstacles and Alternatives (the case of industrial corporation in Iran)", Journal of Entrepreneurship Research, 1, pp. 1-18.
- Moghimi, S.,M. (2004), The Effects Factors on Organizational Entrepreneurship in Governmental Cultural and Social Organizations, Tehran University.
 - Mokwa, M., Permut, S. (1981), Government Marketing, New York: Praeger.

- Morrison, A., Rimmington, M. & Williams, C. (1999), *Entrepreneurship in the Hospitality, Tourism and Leisure Industry*, Oxford: Butterworth Heinemann.
- Nutt, P.C., Backoff, R.W. (1993), "Transforming Public Organizations with Strategic Management and Strategic Leadership", Journal of Management, 19(2), pp. 299-347.
- Ooshaksaraie, M., Asghari, M.,H., Farajpur, Z., & Taleghani, M. (2011), "Relation Between Organizational Structure and Organizational Entrepreneurship (Case Study: Manufacturing Companies in the West of Mazandaran Province)", Kuwait Chapter of Arabian Journal of Business and Management Review, 1(4), pp. 150-159.
- Parker, S. C. (2009), "Intrapreneurship or entrepreneurship?", Journal of Business Venturing, 26(1), pp. 19-34.
- Quesada, U. G., Onaindia, E., & Laburu, C. O. (2011), Determinant Factors for Intrapreneurship: A Case Study Based Analysis. In fifth International Conference on Industrial Engineering and Industrial Management (pp. 56-65).
- Shane, S.A. & Venkataraman, S. (2000), "The Promise of Entrepreneurship as a Field of Research", Academy of Management Review, 25, pp. 217-226.
- Tanha, D., Salamzadeh, A., Allahian, Z., & Salamzadeh, Y. (2011), "Commercialization of University Research and Innovations in Iran: Obstacles and Solutions", Journal of Knowledge Management, Economics and Information Technology, 1(7), pp. 126-146.
- Yadolahi Farsi, J., Zali, M.R., Bagheri Frad, S. M. (2011), Recognition of Structural Factors on Collage Entrepreneurial Development, MA Thesis, Tehran University.
- Zahra, S.A., Nielsen, A.P., & Bogner, W.C. (1999), "Corporate Entrepreneurship, Knowledge, and Competence Development", Entrepreneurship: Theory and Practice, 23(3), pp. 169-189.
- Zahra, S., Covin. J.G. (1995), "Contextual Influences on the Corporate Entrepreneurship-Performance Relationship: A Longitudinal Analysis", Journal of Business Venturing, 10(1), pp. 43-58.
- Zahra, S. (1991), "Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study", Journal of Business Venturing, 6(4), pp. 259-285.
- Zahra, S. A., Jennings, D. F., & Kuratko, D. F. (1999), "The Antecedents and Consequences of Firm-level Entrepreneurship: The State of the Field", Entrepreneurship Theory & Practice, 24, pp. 45-65.

Appendix

Descriptions of variables

Variables	Description	Source(s)/ reference(s)
Organizational structure	Entrepreneurial organizations are flexible and adaptable, far from the bureaucratic and mechanistic organization.	Birch, 1987
Organizational Strategy	A stream of research suggests that entrepreneurship is linked to strategic management that enables public sector organizations to identify new opportunities and generate new process and service innovations.	Behn, 1991; Mokwa & Permut, 1981; Nutt & Backoff,1993
Wage and salary system	As mentioned by Cornwall and Pearlman (1990), payments in salary system of an innovative organization are related to performance not physical presence. Payments are flexible and consider riskability and creativity criteria of individuals.	Atashi and Abdolpour, 2012
Financial System	Successful entrepreneurial accomplishments will inevitably affect the firms' financial performance in the long term, barely in the short term; there might be no association among the CE climate factors and firms' financial performance criteria due to project investments and firms' internal resource usages or possible losses.	Hayton, 2005
Research and Development System	Through redistribution of specilalists between sectors and creation of favorable conditions for innovative activity in this organization, the effictiveness of existing science and engineering work would be increasing and this is only aplicable by R&D system.	Egorov and Carayannis, 1999
Control and Supervision System	Controlling Rules, regulations and policies should be decreased to a minimum level and a free controlling system should be designed.	Moghimi, 2006
Human Resource System	Human Resources Management (HRM) is the function within an organization that focuses on the recruitment of, the management of, and providing direction for the people who work in the organization. Human resources provide a source for competitive advantage and the quality of HRM is a critical influence on the performance of firms, the strategic approach is a characteristic of HRM .	Hashemi, 2012
Physical Opportunities	Physical opportunites include all assets, buildings, office equipments, and vehicles.	Moghimi, 2004
Task Methodology and Process	Task methodology and process should be evaluated regularly in organizational entreprenurship and managers should omit and/or merge the processes which are recognized as barriers of innovation and entreprenurship or causes dissatisfaction of customers.	Moghimi, 2004
Information System	Information should be easily accessible throughout the organization. The decisions made based on the information are influenced by attitude and capacity to interpret information in order to make it meaningful and useful.	Beijerse, 2000