Iranian Journal of Fisheries Sciences 19(4) 1850-1863 2020
DOI: 10.22092/ijfs.2018.118041

Developing organizational entrepreneurship to advance fisheries' economic and social goals

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Received: November 2014 Accepted: November 2017

Abstract

Organizational entrepreneurship is a process during which organizations recognize growth and development opportunities and create new values for customers through innovation and resource re-allocation. Besides, a variety of factors affect organizations' entrepreneurship capacity. In fact, the present paper aims to identify and rank effective factors on organizational entrepreneurship in Mazandaran Province's Fisheries Organization through applied, descriptive–survey methodology. Research population is composed of management and entrepreneurship experts and professionals of Mazandaran Fisheries Organization. This paper, first, reviews related literature. Then, effective factors on entrepreneurship are identified and classified into three groups (behavioral, structural, environmental factors). Required data is collected through Delphi's questionnaire and pair comparisons and are analyzed using Fuzzy Delphi Method (FDM) and Fuzzy Analytical Hierarchy Process (FAHP). Results indicate that effective factors on entrepreneurship are prioritized as: behavioral factors, structural factors and environmental factors. It is clear that organizational entrepreneurship is an important concept advantages of which have emerged more significantly, during recent years, to many organizations, firms and business agencies in various subsections such as industry, agriculture and Fishery and this provides organizations with a variety of social and economic benefits.

Keywords: Organizational entrepreneurship, Mazandaran fisheries, Innovation, Fuzzy Delphi, Fuzzy AHP.

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Introduction

Increasing competition among organizations and their continuously changing environment provoke them to permanently innovate in order to realize their objectives. It is noteworthy that entrepreneurship is the key to increase competitive capacity and obtain competitive advantage. It is defined as an activity performed by organization to enhance risk-taking ability, innovation in products and active responses to environmental stimuli (Miller, 1983).

Moreover, fisheries are of great significance globally as one of the most important economic subsections in supplying food safety, business, employment and eradicating poverty. Humans consume 4 billion tons of food annually 97% of which is obtained from that part of earth surface on which agriculture is possible (3 to 5%). But, seas and oceans, which form 71% of the earth, only supply 3% of human food. Therefore, developing fishery industry and attracting global attention to consume aquatic animals makes the future of the industry promising in the light of sustainable development because of supplied healthy food and available capacities (Adeli, 2013). Thus, success in exploiting capacities of fisheries development requires devising effective policies to remove organizational challenges of the industry to institutionalize entrepreneurship and innovation culture which leads to development of fisheries capacities.

Organizational entrepreneurship is a process through which the whole organization and its employees possess entrepreneurship spirit and the organizations provides appropriate environment to encourage entrepreneurship. Indeed, it is a multidimensional concept and leads organizational activities toward innovation in products, innovation in technology, risk –taking and pioneering. Besides, it means organizational commitment to develop and introduce new products, novel procedures and modern organizational systems (Covin and Slevin, 1991).

In fact, most organizations, firms and many social and economic sections and subsections have found out entrepreneurship necessity (individual and organizational types). The tendency mainly originates from new and complicated circumstances facing organizations with technological and competitive bottlenecks and putting continual traditional methods in trouble. Entrepreneurship can be considered as a key factor in enhancing competitive capacity of organizations and gaining competitive advantage. Organizational entrepreneurship is also defined as entrepreneurship activity in the form of product, process and organizational innovations (Antončič and Hisrich, 2001; Antončič and Zorn, 2004; Bhardwaj and Sushil, 2005).

Organizational entrepreneurship not only refers to developing new business investments, but also considers other innovative activities and orientations including development of products, technologies, administrative and operational techniques, strategies and competitive thoughts and tendencies (Antončič and Zorn, 2004). Moreover, it is a process through which individuals capture inter-organizational opportunities

regardless of their possessed resources. Organizational entrepreneurship is a concept adopting innovations as main components: expanding new formulation of products, reengineering or reducing process costs, seeking intact markets, novel applications of new products and services and new investments (Obino Moyaka, 2012). Furthermore, research has shown that organizational entrepreneurship is likely to relate organizational performance improvement and the relation usually bases upon growth and profitability (Antončič and Zorn, 2004). Competitive advantages involved in organizational entrepreneurship are: 1) competitive advantage of cost distinction or leadership in the market; 2) rapid response to every change; and 3) new strategic procedure or new performing methods or inter-organizational learning (Obino Mokaya, 2012).

It is noteworthy that, so far, various quantitative and qualitative studies are performed on identifying and investigating effective factors on entrepreneurship and organizational entrepreneurship (Koelewijn *et al*., 2012; Rojas *et al*., 2013; Agarwal and Shah, 2014; Javalgi *et al*., 2014). However, these studies shortly point to effective factors on organizational entrepreneurship. Therefore, the present paper categorizes the effects, respecting various investigations and opinions of experts, into three groups:

Behavioral factors: behavioral factors affecting organizational entrepreneurship include those human factors and relationships in the organization forming behavioral norms, informal relations and adherent certain patterns and main content of the organization. These factors, in fact, are considered as the organization's dynamicity and live part. Besides, every element and variable directly related to human resource is categorized in this group (Moghimi, 2007).

Structural factors: these involve all elements, factors and physical and non-human conditions of the organization which are connected regularly and form the framework, form, surface, body and physical or material body of the organization. Therefore, the whole material, information and technical resources current in the organization's general body (non-live factors except human elements) are categorized in this group.

Environmental factors: environmental (field) factors affecting organizational entrepreneurship include environmental factors and conditions surrounding the organization and interact with it. The organization has no control over these and they influence the main part of most organizations' performance.

As mentioned earlier, researchers recognized a variety of factors as effective indicators on organizational entrepreneurship and the table blow summarizes the indicators and their supporting literature.

Table 1: Effective factors on organizational entrepreneurship according to previous literature.

Factors	Effective factors	Supporting literature
Behavioral factors	1.Organizational culture;2.Managers' support;3.Employees' personal features;4.Team spirit;5.Empowering employees;6.Management factors;7.Orgaizational relations;8.management incentives;9.Farsighting;10.Risk-taking ability;11.Managers' personal features;12.Training employees on entrepreneurship;13.leadership styles	Moghimi, 2007; Analoui *et al*., 2009; Kearney *et al*., 2009; Srivastava and Agrawal, 2010
Structural factors	1.Research and development systems;2.Financial systems;3.Organizational structure;4.Organizational strategy;5.Performance methods;6.Organizational physical factors;7.organizational technologies;8.Organizational systems;9.Decision-making systems;10.Organization's size and borders;11.Organizational policies and guidelines;12.Human resource system;13.Reward systems;14.Information source system;15.Performance evaluation systems;16.Organizational resources;17.Control and monitoring systems	Zerbinati and Vangelis, 2005; Sadler, 2000; Chaka, 2006; Moghimi, 2007; Kearney *et al*., 2008; Scheepers *at al*., 2008; Srivastava and Agrawal, 2010
Environmental factors	1.Legal-political environment;2.coplexity;3.Generosity;4.Environmental changes;5.Economic environments;6.Cultural and social environments;7.Technological environments;8.International environments;9.Resources;10.Customer relationships;11.Administrative environment;12.Infrastructures;13.Market environment	Sadler, 2000; Kuratko *et al*., 2005; Moghimi, 2007; Kearney *et al*., 2008; Kearney *et al*., 2009; Zampetakis and Moustakis, 2007

Respecting recent global studies and considering importance of organizational entrepreneurship as a prior idea in today's organizations and investigating effective factors on it as organizational effectiveness indicators no research has so far been performed on the topic in fisheries industry. Thus, the present paper aims to identify and rank effective factors on development of organizational entrepreneurship in Headquarters of Mazandaran Fisheries Organization.

Here, it must be noticed that the articles seeks an answer to following questions:

What are effective factors (structural, behavioral and environmental) on organizational entrepreneurship in Mazandaran Fisheries Administration?

How are effective factors (structural, behavioral and environmental) on organizational entrepreneurship ranked?

Material and methods

In terms of research objective and nature, the present paper is of applied and descriptive – survey type, respectively. In order to achieve research goals, the first step was to identify and classify the best model or numerous important and effective factors on organizational entrepreneurship process into three classes (behavioral, environmental and structural factors) through comprehensive library investigations and evaluation of related literature. In the next step, organizational experts of Mazandaran Fisheries Organization employed FDM to recognize main effective factors on organizational entrepreneurship procedure.

Finally, the components and multi-measure decision-making techniques, such as FAHP, and opinions of selected experts were used to rank effective factors on organizational entrepreneurship process. For the research sake and respecting the use of pair comparison questionnaire and

Fuzzy AHP method and the need to ideas of experts 10 of organizational professionals of Mazandaran Fisheries Organization (highly familiar with management and organizational entrepreneurship issues) were selected as the sample through targeted sampling. Then, as mentioned earlier, Delphi and pair comparison questionnaires were designed and distributed among experts. In the next step questionnaires were collected and FAHP (research proposed method to prioritize components) was employed.

Fuzzy Delphi method

The method was proposed by Ishikawa *et al.* (1993). In fact it is a combination of traditional Delphi method and theory of Fuzzy complex. Noorderhaben (1995) found that use of FDM in the case of group decisions may lead to a common understanding of experts' ideas. Previous literature based upon Triangular Fuzzy Number, Trapezoidal Fuzzy number and Gaussian Fuzzy Number, but the present paper used triangular membership functions and Fuzzy theory to solve group decision-making issues (Ishikawa *et al.*, 1993; Hsu *et al.*, 2010).

In this paper, FDM was used to find experts' ideas on a certain measure. It is assumed that the value of evaluating measure j in the view of expert i amongst n experts is $\widetilde{W}ij = (a_{ij}, b_{ij}, c_{ij})$ where $j = 1,2,\dots,m$ and $i = 1,2,\dots,n$. Hence, Fuzzy value of measure j is calculated using the following formulation which equals $\widetilde{W}j = (a_j, b_j, c_j)$.

$$a_j = min\{a_{ij}\}$$

$$b_j = \frac{1}{n}\sum_{i=1}^{n} b_{ij}$$

$$c_j = max\{c_{ij}\}$$

Here, the following equation is used to make a diphasic (Hsu *et al.*, 2010):

$$S_j = \frac{a_j + b_j + c_j}{3}, \quad j = 1,2,\dots,m$$

Finally, a range of acceptance to denial was considered to extract required measures. Respecting the 30-70 rule, measure acceptance border was 7 (Hsu *et al.*, 2010). If the diphased value of triangular fuzzy number is close to or higher than 0.7 is confirmed as an acceptable measure and denied if not.

$S_j \geq a \quad , \quad S_j < a$

Fuzzy analytical hierarchy process

Analytical Hierarchy Planning (AHP) was first proposed by Thomas AL – Saati and is a multi-measure decision-making tool with a variety of applications. Since its emergence AHP is used as a tool by decision-makers and researchers in multi-measure decision-making procedures. But, in fact, the traditional AHP fails to reflect human thinking style. It lacks the capability to present decision-makers ideas comparing various items. Hence, FAHP id proposed to solve such problems (Laarhoven and Pedrycz, 1983). In this research, also, researchers used FAHP to determine coefficients of essential factors affecting organizational entrepreneurship. Indeed, the resent paper employs FAHP first proposed by Chang (Chang, 1996).

Moreover, since triangular fuzzy numbers are the most widely used ones,

they are also employed here. They can be shown as (*l*, *m*, *u*). Parameters l, m and u represent the lowest value possible, the most likely value and the highest possible value describing a fuzzy event, respectively.

Results

Fuzzy Delphi Method (FDM)

Investigating ideas of experts in this paper indicated that among 13 indicators of behavioral factors, only 6 were determined (based on 30 – 70) as essential behavioral (content) indicators influencing organizational entrepreneurship. These six factors include: 1. organizational culture; 2. leadership styles; 3. organizational relations; 4. entrepreneurship training; 5. risk-taking; and 6- team spirit.

Besides, among 17 indicators of structural factors only 7 were determined as effective on organizational entrepreneurship: 1. organizational strategy; 2. information sources system; 3. organizational structure; 4. reward systems; 5. human resources system; 6- organizational guidelines and policies; and 7. organization's financial system.

Furthermore, among 13 indicators of environmental factors only 6 were selected (based on 30-70 rule) as essential effective environmental (field) factors on organizational entrepreneurship: 1. economic environments; 2. legal – political environment; 3. administrative environment; 4. cultural and social environments; 5. technological environments; and 6. international environments.

Establish a hierarchical framework

Based on FDM, a general consensus among experts can be reached to establish a hierarchical structure. The effective indicators on organizational entrepreneurship can be evaluated based on three evaluation aspects and 19 evaluation criteria (Fig. 1).

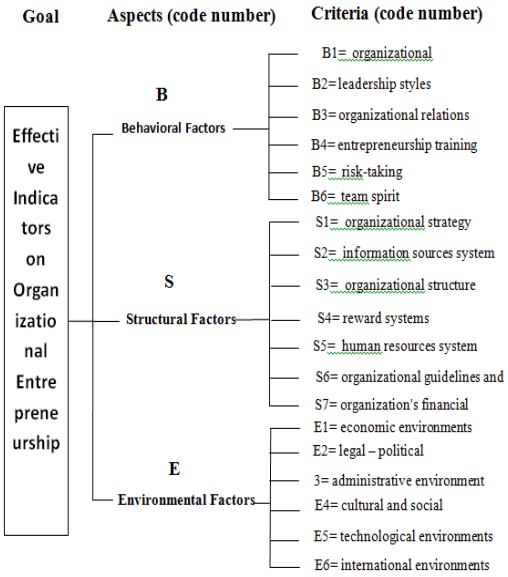

Figure 1: The hierarchy model of effective indicators on organizational entrepreneurship.

Fuzzy analytical hierarchy process

Step one: all factors are compared in pairs by experts. The paired comparison is performed according to table below to determine preference degree of factors to each other. Besides, if the *N* represents the number of factors, the number of pair comparisons is calculated by:

$NC = N(N-1)/2$

In addition, oral ideas of every single respondent (experts) on measurement indicators of effective factors on organizational entrepreneurship (collected based on Saati's 9-item scale) are converted to triangular fuzzy numbers (l,m,u) according to method below. In fact, this section only presents analysis of main factors and only results of side factors are mentioned.

Table 2: Membership function of the linguistic scale.

Fuzzy number	Linguistic scales	TFN $\tilde{\alpha}_{ij}$	Reciprocal of a TFN $\tilde{\alpha}_{ij}$
$\tilde{9}$	Absolutely important	(7,9,9)	(1/9,1/9,1/7)
$\tilde{7}$	Very strongly important	(5,7,9)	(1/9,1/7,1/5)
$\tilde{5}$	Essentially important	(3,5,7)	(1/7,1/5,1/3)
$\tilde{3}$	Weakly important	(1,3,5)	(1/5,1/3,1)
$\tilde{1}$	Equally important	(1,1,1)	(1,1,1)

(Sources: Wu *et al*., 2009)

Step 2: Extracting the matrix of experts' ideas assembly. The matrix is obtained based on table below using geometric average of every single component (l,m,u) of achieved matrices in previous step (number of matrices equals the number of experts). To calculate geometric average of corresponding components (l,m,u) every single matrix of pair comparisons (n) are multiplied by each other and its n^{th} root is determined.

Table 3: The matrix of experts' ideas assembly.

Factors	E	S	E
B	(1,1,1)	(1.27,1.98,2.81)	1.17,1.57,2.29
S	(0.355, 0.504, 0.782)	(1,1,1)	(0.494, 0.719, 1.11)
E	(0.436, 0.634, 0.851)	(0.598, 1.39, 2.29)	(1,1,1)

Step 3 is calculating factors' fuzzy compound expansion. The sum of all components $\Sigma(l_{ij}, m_{ij}, u_{ij})$ is calculated for every row and column of the matrix. Doing this gives three numbers. They are reversed and shown in fuzzy form and hence first and third elements are replaced.

$$\sum_{i=1}^{n}\sum_{j=1}^{m} M_{ij} = \left(\sum_{i}^{n} l_i, \sum_{i}^{n} m_i, \sum_{i}^{n} u_i\right)$$

$$\left[\sum_{i=1}^{n}\sum_{j=1}^{m} M_{gi}^{j}\right]^{-1} = \left(\frac{1}{\sum_{i=1}^{n} u_i}, \frac{1}{\sum_{i=1}^{n} m_i}, \frac{1}{\sum_{i=1}^{n} l_i}\right)$$

Then, sum of three numbers $\Sigma(l_j, m_j, u_j)$ of every row is multiplied by the sum of three previously calculated reverse numbers.

$$S_K = \sum_{j=1}^{n} M_{kj} \otimes \left[\sum_{i=1}^{n}\sum_{j=1}^{m} M_{gi}^{j}\right]^{-1}$$

Step 4 is to calculate matrix of feasibility degree of possible pairs. Here, analyses are performed in a column pattern. If the value of m_{ij} of a factor is greater than that of another, the number is 1 and if is smaller, following calculations are performed.

$$\begin{cases} V(M_1 \geq M_2) = 1 & if \quad m_1 \geq m_2 \\ V(M_1 \geq M_2) = \text{hgt}\,(M_1 \cap M_2) & Otherwise \end{cases}$$

$$\text{hgt}\,(M_1 \cap M_2) = \frac{u_1 - l_2}{(u_1 - l_2) + (m_2 - m_1)}$$

Table 4: Feasibility degree of possible pairs

Factors	B $V(S_{c1} \geq S_{ci})$	S $V(S_{c2} \geq S_{ci})$	E $V(S_{c3} \geq S_{ci})$
B		(0.335)	(0.184)
S	(1)		(1)
E	(1)	(0.459)	

Step 5 is to obtain final weight and rank of each indicator. Now, we have the least feasibility degree and final weight of every component. According to these two values, the final rank of every effective factor on organizational entrepreneurship in Mazandaran Fisheries Organization is obtained. In fact, the findings indicate that in view of experts of Mazandaran Fisheries Organization, the priority order of effective factors on organizational entrepreneurship is as follows:

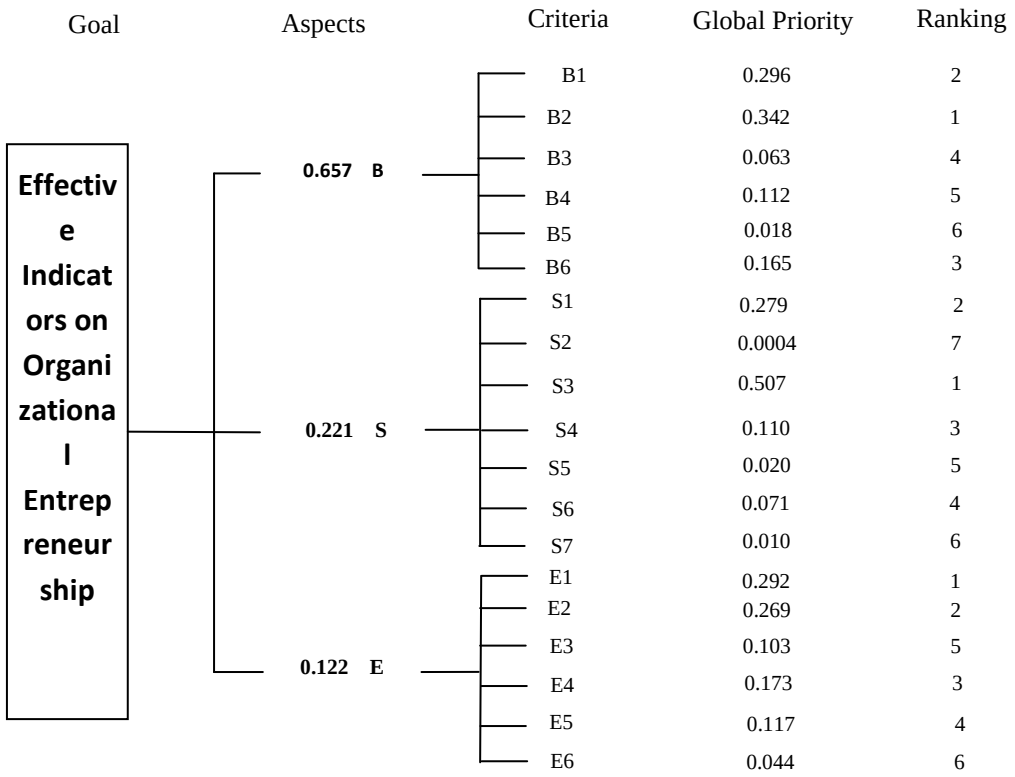

Figure 2: The weights of effective indicators on organizational entrepreneurship hierarchy model.

Step 6 is to calculate compatibility of pair comparison matrices. Gogus and Boucher (1997) used the following method to calculate incompatibility of fuzzy pair

comparison matrices (Gogus and Boucher, 1997). In this method, it is necessary to split pair comparison matrix of experts' ideas assembly into two other matrices: A^m and A^g (the matrices are not presented because of voluminous pages). It is noteworthy that the obtained value of incompatibility index of A^m and A^g is smaller than 0.10and this indicates acceptable incompatibility rate of the research.

Calculating A^m: according to obtained assembly matrix, only the middle component (m) is considered and a matrix is extracted.

$$A^m = [a_{ijm}]$$

Normalizing A^m and calculating W^m: using the following equation, the matrix obtained in previous step is normalized and the weight of each factor is calculated.

$$w^m = [w_i^m] \quad where \quad w_i^m = \frac{1}{n}\sum_{j=1}^{n}\frac{a_{ijm}}{\sum_{i=1}^{n} a_{ijm}}$$

Calculating λ_{max} of matrix A^m: the maximum specific value (λ_{max}) of the matrix is calculated using the equation below. To do this, every component of matrix A^m is multiplied by its corresponding column of W^m and then W^m is divided by the relative row. Finally, the product is divided by n (matrix dimensions). Then, following formulations are used to compatibility index, random index and compatibility ratio of matrix A^m is determined.

$$\lambda_{max}^m = \frac{1}{n}\sum_{i=1}^{n}\sum_{j=1}^{n} a_{ijm}\,(w_j^m / w_i^m)$$

$$CI^m = \frac{(\lambda_{max}^m - n)}{(n-1)}$$

$$CR = CI/RI$$

Calculating matrix A^g: it is calculated from the geometric average of higher and lower limits of triangular fuzzy numbers:

$$A^g = \sqrt{a_{ijl} \cdot a_{iju}}$$

Normalizing A^g and calculating W^g: it is done through the following formulation:

$$w^g = [w_i^g] \quad where \quad w_i^g = \frac{1}{n}\sum_{j=1}^{n}\frac{\sqrt{a_{iju}.a_{ijl}}}{\sum_{i=1}^{n}\sqrt{a_{iju}.a_{ijl}}}$$

Calculating λ_{max} of matrix A^g: the maximum specific value (λ_{max}) of the matrix is calculated using the equation below. To do this, every component of matrix A^g is multiplied by it corresponding column of W^g and then W^g is divided by the relative row. Finally, the product is divided by n (matrix dimensions). Then, following formulations are used to compatibility index, random index and compatibility ratio of matrix A^g is determined.

$$\lambda_{max}^m = \frac{1}{n}\sum_{i=1}^{n}\sum_{j=1}^{n} a_{ijm}\,(w_j^m / w_i^m)$$

$$CI^m = \frac{(\lambda_{max}^m - n)}{(n-1)}$$

$$CR = CI/RI$$

Discussion

One of the most important aspects of modern organizations is their degree of employing entrepreneurship and transferring it into the organization to gain competitive advantage. Structural, behavioral and environmental factors are among those the present paper recognizes as main ones affecting development of entrepreneurship in organizations. In fact, the paper aimed to identify and rank effective factors on organizational entrepreneurship process in Mazandaran Fisheries Organization using FDM (to identify factors) and FAHP (to rank them).

Results of the analysis of the effective factors on the organizational entrepreneurship process in Mazandaran Fisheries Organization, on the basis of the experts' opinion and Fuzzy Delphi test, revealed that six behavioral factors, seven structural indicators, and six environmental (contextual) indicators are recognized as the effective factors on the organizational entrepreneurship. Considering the exploited indicators by means of research literature review and their first validation test through FDM and polls from Mazandaran Fisheries Organization experts, the exploited indicators could be taken into account as desirable and efficient tool to investigate the effective factors on organizational entrepreneurship in Fisheries Industry.

Results of ranking the effective factors on the organizational entrepreneurship process within Mazandaran Fisheries Organization showed that three main indicators are ranked as: 1. Behavioral factors; 2. Structural factors, and environmental factors.

In the case of comparison of the present research findings to others' research ones, it should be noted that this study had tried to develop organizational entrepreneurship model using the effective factors on organizational entrepreneurship which are represented by other authors. Therefore, we can say the present research, in alignment with other studies; take an effective step towards better recognition of the effective factors on the development of organizational entrepreneurship process.

Results of testing the first question (what are effective factors on organizational entrepreneurship in Mazandaran Fisheries Organization?), ideas of experts and result of fuzzy Delphi test indicated six behavioral factors (1.organizational culture; 2. leadership styles; 3. organizational relations; 4. entrepreneurship training; 5- risk-taking; and 6. team spirit), seven structural indexes (1. organizational strategy; 2. information sources system; 3. organizational structure; 4. reward systems; 5. human resources system; 6. organizational guidelines and policies; and 7. organization's financial system) and six environmental (field) factors (1. economic environments; 2. legal – political environment; 3. administrative environment; 4. cultural and social environments; 5. technological environments; and 6. international environments) affecting organizational entrepreneurship.

Respecting previous literature and validity tests and surveys of experts, components and factors above can be considered proper and respected as an efficient tool to examine effective factors on organizational entrepreneurship in fisheries industry.

Besides, results of testing the second question (How are effective factors on organizational entrepreneurship ranked?) indicated that priority and ranking of the main three indices accepted by experts are as the follows: 1. Behavioral factors, 2. Structural factors and 3. Environmental factors. Moreover, ranking of side components demonstrated the following facts:

A) Priority and ranking of behavioral components: 1. Leadership styles, 2. Organizational culture, 3. Team spirit, 4. Entrepreneurship training, 5. Organizational relations, 6. Risk-taking.

B) Priority and ranking of structural components: 1. Organizational structure, 2. Organizational strategy, 3. Reward system, 4. Organizational guidelines and policies, 5. Human resources system, 6. Organization's financial system, and 7. Information sources system.

C) Priority and ranking of environmental components:1. Economic environments, 2. Legal – political environment, 3. Cultural and social environments, 4. Technological environments, 5. Administrative environment and international environments.

Comparing findings of the present paper to those of previous literature suggests that this research tried to use effective factors on organizational entrepreneurship, recognized by other researchers, to develop its models. Hence, it is consistent with previous research and moves toward better understanding of effective factors on organizational entrepreneurship.

Moreover, the present research can be applied to the organization based on prioritizations performed. This means that research results can manifest the role, importance and rank of effective factors on organizational entrepreneurship to managers to be used in macro plans. Now, below are managerial suggestions and guidelines to develop organizational entrepreneurship based on the research results:

1. Behavioral factors: As tests indicated, behavioral factors have the most contribution in organizational entrepreneurship. Therefore, the following suggestions are related to these factors:

Managers of fisheries should respect principles such as participating employees in creative decision-making, encouraging them to present new suggestions and awarding them more authority in organizational decisions to move toward developing innovation and entrepreneurship. They have to provide an environment in which entrepreneurship culture is institutionalized to prepare conditions to avoid steadiness and limiting regulations in the organizations. Conducting educational pamphlets on organizational entrepreneurship by managers to provide employees with the opportunity to express their feelings and beliefs and transfer innovative and new thoughts and ideas is another effective way of developing innovation and entrepreneurship.

2. Structural factors: The research showed that structural factors have a significant impact on organizational entrepreneurship. Thus, the following suggestions concern this factor:

Organizational managers can develop a dynamic and flexible structure to expand innovation, creativity and entrepreneurship. The managers should formulate their strategies toward making the sense of the opportunities. The organization should try to achieve a string and common strategic perspective between managers and employees. It has to change its salary system to respect justice and employees' performance in payments. It can develop reward measures to motivate creative employees to express more innovation and entrepreneurship. Human resources managers should respect competency and personal performance in policy-making, selecting, appointments and their daily tasks.

3. Environmental factors: Findings showed that environmental factors have the lowest effect on organizational entrepreneurship. In fact, this does not mean low effect of such factors on organizational entrepreneurship. Therefore, managers should make more effort to develop and improve such factors.

Organizations such as fisheries are a function of legal – political environment because of their state nature. This means that they have to accept governmental policies and guidelines in their management issues. The efficiency of the government's rules and regulations could provide an appropriate environment to the organizational entrepreneurship development. Revising government role based on rules of the constitution and emphasizing regularities in appointment system may provide for developing organizational entrepreneurship. Moreover, organizations can develop economic teams to analyze economic environments and measure the nature and expectations of economic markets to overcome the environment and control and predict is possible changes.

At the end, respecting the significance of research topic, cases are suggested as probable topics for future research:

- Using and testing model of the present research in other state organizations.
- Using other research methods in examining effective factors on developing organizational entrepreneurship in the present organization (and others).
- Identifying and testing other effective factors on organizational entrepreneurship in fisheries industry.
- Presenting a new model to determine harms or obstacles of developing organizational entrepreneurship in fisheries industry.

Acknowledgement

The authors recognize that it is necessary to acknowledge cooperation and guidelines of respected authorities and experts of Mazandaran Fisheries Organization.

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