

## Studying the Effects of the Functions of Human Resource Management on Organizational Entrepreneurship

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**Abstract:** In recent decades, intense competition between the organizations and the changes in industrial fields has forced the organizations and companies to use innovation and entrepreneurship to preserve their competitive power. The effects of entrepreneurship on creation of small and medium enterprises (SMEs) and their subsequent effects on the economy of the societies cannot be denied. The effects like generation and distribution of the wealth and incomes, job creation, and preparation for generating and extending different sorts of business are just some few samples of these benefits. On the other hand, it is generally agreed that the human resource in any organization is the main principal of that organization. For the same reason and for the existence of such competitive environments, optimized using of the mental and executive power of the employees to reinforcing the innovation and creativity is now vitally important. The main objective of this research is to study the relationship between the elements of human resource management and organizational entrepreneurship. In particular, we will focus on such a relationship through organizational citizenship behaviors and organizational perceived support. This research is a descriptive research being done in correlation method. The statistical population of the research includes all active experts of cultural and social organizations of Iranian Zanjan Province who are totally 967 persons. The instruments of data collection are questionnaire, interview, and archival studies whose data that have been analyzed with statistical softwares. The results of the research show that there is a significant relationship between some functions of human resource management and the entrepreneurship, though the size of such effectiveness is different.

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### 1. Introduction

Nowadays, the effect of entrepreneurship on economic growth is being emphasized more than ever, and every day a new dimension of these effects is being revealed. The researchers weight extending and reinforcing entrepreneurship more than issues like removing business barriers, extending shipment, developing production, or even information technology. They believe that the fulfillment of mentioned items depends on the development of entrepreneurship (knight, 2000; Bell, 1995). The organizations look for solutions to optimized using of the creativity and innovation of their employees at the highest possible level. In this process, human resource management (HRM) has an exclusive position due to dealing with the organizational human forces, thus it is considered as one of the most important and effective factors in the development of organizational entrepreneurship. Regarding the instruments owned by human resource management, how much it can develop and reinforce innovation and entrepreneurship in the employees? The subject of this research and many similar researches is to study the effects of organizational entrepreneurship. Generally, in the process of such a study there are

two trends (Carrier, 1996). The first trend deals with the effects of entrepreneurship process on the organization. The studies of this trend focus on the positive effect of entrepreneurial activities on promotion and reinforcement of organizational performance (Coartco, et. al, 1990; Zahra, 1993; Zahra & Pierce, 1994; Lumpkin, & Dess, 1996). The second trend refers to the factors and conditions that lead to the creation, reinforcement and development of the entrepreneurship in organizations. To follow up this subject, especially in old-established organizations is very important because new-established organizations are somehow a manifestation of entrepreneurship (Zahran & Covin, 1995; Dess, et. al, 1999; Hitt and Ireland, 2000; Covin & Miles, 2007; Kathuria & Joshi, 2007). In this trend, the main attention is paid toward the resources (including human resource) and new ways of combining the resources in order to identify the new opportunities and creating innovations (Zahra, 1999). The goal of using this resource-based view is organizational growth (Penrose, 1995), high profit (Wernerfelt, 1984) and gaining competitive advantages (Barney, 1991). The subject of this research goes along the lines of the latter trend. The

concept of organizational entrepreneurship has a deep relationship with the human resource management and it is not possible to make them separated. We cannot expect the organization to move toward organizational entrepreneurship without attempting to absorb and train the desirable human resource. The point here is that human resource management is a very wide process and it has not to be considered in a general way. No researcher denies the effect of human resources on the organizational entrepreneurship but the question is that the emphasis on which parts of human resource management can accelerate organizational entrepreneurship and implement it successfully in the organization? To find an answer, it is necessary to divide the performance of human resource management into different parts and to study the effect each part separately.

We can commonly divide the activities of human resource management in three sections. The first sections are those activities that are being done before employing the forces. Work design is the most important activity of this phase. The second section related to the employment of the forces, and the third section includes those activities that are being done after each employee begins his/ her work. Since the first and second sections focus on the absorption of the forces, their activities can be somehow considered as the attempts of the organization to attract desirable forces. One of the criteria of performance appraisal in selecting desirable forces is the concept of organizational citizenship. If the work design and force attraction is being done in a way that the performance of the organizations is spontaneous and volunteer and leads to organizational efficiency, then we can say that the organization is successful in creating a dynamic organizational citizenship behavior. Moreover, addressing the behavior of the employees in administrative system can affect the performance of human resource management. The behavior of the managers in interaction with the employees will shape the mentalities in the employees. This concept is theoretically called "perception of the organizational support". Perception of the organizational support and the organizational citizenship behavior are two main components that are heavily by the functions of human resource management.

Accordingly, in this research we try to study the relationship between the functions of human resource management and organizational entrepreneurship regarding two factors of perceptions of organizational support and organizational citizenship behavior.

## 2. Theoretical Framework

2.1. Human resource management and its functions

2.1.1. Human resource management

Human resource management is a set of activities that will lead to preserving the optimized abilities of the employees and improvement of their relations (Leen, et. al, 2008). The main stages of the process of human resource management are as follow (Rezaeian, 2004, p. 393):

1. Absorbing capable work forces, programming to recruit, select, and employ the human resource;
2. Nurturing, guiding, and training forces and improving the human resource;
3. Preserving capable human resources, preventing their abandonment, and improving the relations of the employees and managers.

2.1.2. Functions of human resource management

Available definitions confirm the role of human resource management in developing and applying the policies of the management. Some of the most important functions of human resource management are as follow (Walton, 2004, p. 151):

- Planning, recruiting, selecting, employing and discharging the human resources
- Nurturing and training the employees and managing the path of work achievement
- Determining the conditions of the employment, commitments, and the rights of employment contracts
- Assessing the personnel and managing their performance
- Determining the rewarding system, payments, and work assessment
- Diversity management
- Improving the relations of the employees
- Safety, health, and welfare of the employees

Tendency towards the (personal and organizational) entrepreneurship is an important parameter for the organizational survival and guaranty of the organizations' growth and development in modern competitive environment (Morris & Jones, 1993, p. 4), particularly when the working field of many organizations in different fields and industries moves toward being knowledge-intensive. This point reveals the necessity of using concepts like organizational entrepreneurship (Snell, et al, 2002). Yokles (2000) introduces the following factors as the most important dimensions of human resource management in relation to organizational entrepreneurship: work design, work assignment, training, performance appraisal, rewarding,

employees' participation, human resource management, and entrepreneurship.

## 2.2. Organizational entrepreneurship

Entrepreneurship is defined as the process of creating new sources or combining available sources so that it leads to developing and creating new business opportunities. These opportunities can take place in the form of producing a new product, moving toward new and original markets, or providing the services to new customers (Ireland, et al, 2001). Moreover, entrepreneurship is the process of creating and searching the opportunities and following them up regarding the available sources (Timmons, 1994). Generally entrepreneurship deals with three different concepts: innovation, risk taking, and attempts (Covin and Selvin, 1989).

To explain the entrepreneurship in the organizations, Sosbaer (1973) coined the expression "intra-organizational entrepreneurship". He pointed that this process include establishing relatively independent units within the organizations and companies which allow the members of the organization to work like small companies with the same spirit, freedom, and commitment. In 1985, Pinchot used Sosbaer's words and coined intrapreneurship and defined organizational entrepreneur as a person who discovers and exploits new product, activities, or technologies within an organization (Pinchot, 1985, p. 17). In yet another definition, entrepreneurship means to convert each of the organization's employees to a creative entrepreneur. Organizational entrepreneurship is indeed to implement the principles of personal entrepreneurship in the heart of the organization (Ahmadpur, 2005).

## 2.3. Organizational citizenship behavior

### 2.3.1. The concept of organizational citizenship behavior

Organizational citizenship behavior was first defined by Cann and Katz in 1987 as cross-functional behaviors. But the researches on this concept had begun 24 years ago, when Organ and Battman introduced the concept with the same expression (organizational citizenship behavior). Since then, many studies were conducted on organizational citizenship behavior and its effects on the performance of the organization, among which one can refer to the studies done by Katz, Organ, Babato, and Jacks each of which has been the source of many other researches (Brightman, et al, 2003, p. 360). The first studies on the field of organizational citizenship behavior had focused on identification of the responsibilities and behaviors of the employees in the organization that were usually ignored. Although such behaviors were not completely assessed in traditional performance appraisals, or even were

completely forgotten in some occasions, but they were effective in improvement of the organizational effectiveness (Bionstock, et al, 2003, p. 360). In some other definitions, organizational citizenship behavior is the arbitrary behaviors of the employees that are not regarded as their official tasks. Such organizations are not officially recognized in rewarding system of the organization but they will increase the general effectiveness of the organization.

### 2.4. Perceived organizational support

One of the key factors in implementing the programs of human resources is supporting. Supporting is an intra-organizational concept and refers to expert and top employees who help younger and low-experienced employees in their personal path of work achievements. Of course this supporting is sometimes granted by the organization and executive managers of the organization. Anyway, organizational supporting can be done financially, spiritually, or by facilitating the work conditions, resource assignment, or any other form of supporting (Walton, 2005, p. 234).

### 2.5. Functions of human resource management and organizational entrepreneurship

Early studies showed the relationship between the functions of human resource management and organizational entrepreneurship. For example, Burgelman (1983) and Schuler (1986) are among the researchers who believed a large part of the activities of human resource management affects intra-organizational entrepreneurship. It is generally agreed that there is a direct relationship between entrepreneurship in organizations on one hand, and each of human resource management policies like planning, encouragement, promotion, rewarding, training, work development, work relationships, etc. on the other hand (Schuler, 1986). The effectiveness of human resource management on entrepreneurship is a subject that has been rarely studied in past and there are little studies on human resource management in entrepreneurial organizations. This is while human resource management has a key role in entrepreneurial organizations and it can be claimed that HRM is the main factor on development and growth in such organizations (Keating and Olivers, 2007). For the same reason, studying the subject is now being increased, though still there is not a comprehensive model to explain the relationship between these two factors well (Katz, et al, 2000). Thus, regarding the proposed theoretical framework of the study and regarding the results of previous studies, in this research we present the relationship between the functions of human resource management and organizational entrepreneurship in the following model.

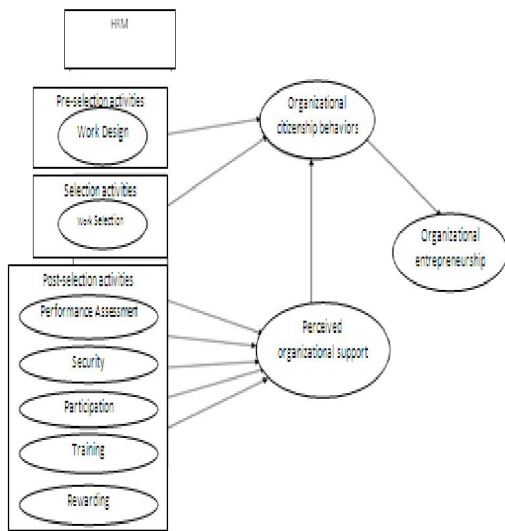


Fig. 2. Conceptual model of the research

Hypotheses

Main hypotheses

1. Functions of human resource management affect organizational entrepreneurship through organizational citizenship behaviors.
2. Perceived organizational support affects organizational entrepreneurship through organizational citizenship behaviors.

Subsidiary hypotheses

- H1 Work design affects organizational entrepreneurship through organizational citizenship behaviors.
- H2 Work selection affects organizational entrepreneurship through organizational citizenship behaviors.
- H3 Training affects organizational entrepreneurship through perceived organizational support.
- H4 Performance appraisal affects organizational entrepreneurship through perceived organizational support.
- H5 Rewarding affects organizational entrepreneurship through perceived organizational support.
- H6 Participation affects organizational entrepreneurship through perceived organizational support.
- H7 Work security affects organizational entrepreneurship through perceived organizational support.

3. Methodology

3.1. Research Method

Since this is a practical research, it is regarded as a descriptive (non- experimental) researches that is conducted in correlation way.

3.2. Statistical population

The statistical population of the study includes all active experts of cultural and social organizations of Iranian Zanjan Province who encompass 967 experts. The number of their organizations equals to 17.

3.3. Sampling and determining the sample size

We have used random classified sampling method in this research. To calculate the sample sized we have used Cochran limited population relationship:

$$n = \frac{N \times Z^2 \times p \times q}{d^2 (N - 1) + Z^2 pq}$$

The accuracy of the research is %00.5, so the sample size will be 275. To be more confident and better coverage of probable deficient questionnaires, we regarded the sample size as 310 and so we collected 303 questionnaires.

3.4. Data collection method

Regarding the nature of the problem and the proposed hypotheses, we used questionnaire to collect the data after considering the reliability and validity of the instrument. To collect the theoretical data and to review the literature we used library method through studying the related books, journals, and internet websites to get acquired with the results of other researchers' experimental results. Moreover, to measure the variables of the research we used questionnaire. In this questionnaire, the components and indexes were assessed and measured as shown in following tables.

A) Functions of human resource management:

Table 3.3. components and indexes of the questionnaire of the functions of human resource management

Concept	components
Functions of human resource management	Work design
	Work selection
	Performance appraisal
	Work security
	Participation
	Training
	Rewarding

B) Organizational citizenship behaviors

Table 3.4. Components and indexes of the

questionnaire of citizenship behaviors (Organ, 1998)

Concept	components
Organizational Citizenship Behaviors	Humanitarianism
	Responsibility
	Magnanimity
	Civil attitude
	Respect

C) Perceived Organizational Support

Table 3.5. Components & indexes of the questionnaire of perceived organizational support (Alpkan, et al, 2010)

Concept	Components
Perceived organizational support	Rewarding system, based on performance
	Supporting ideas by managers
	Risk tolerance
	Assigning free times to the employees
	Work discretion

D) Organizational entrepreneurship

Table 3.6. Components & indexes of organizational entrepreneurship (Antonic & Hisrich, 2003)

Concept	components
Organizational entrepreneurship	New work fields
	Innovation in services
	Innovation in process
	self-refreshing
	Risk taking
Pioneering	

3.5. Reliability and validity

To be confident about the reliability of the questionnaire we did the following activities: The researchers firstly did the literature review using some credible resources. Then they started extracting and exploiting the opinions of the experts of human resource field. Finally, they preliminarily distributed the questionnaires in pilot among the employees of some sample organizations and collected their reformist views and suggestions. Accordingly, the final questionnaire has the needed characteristics. Moreover, in order to assess reliability of research, we used LISREL software and factor analysis.

Cronbach's alpha has been used in this research to scrutinize the validity of the research (refer to following formula). Since the questionnaire has been used in Likert spectrum and indeed it is to

assess the attitudes, thus the most desirable way of assessing the validity is Cronbach's alpha.

$$\alpha = \frac{K}{K-1} \left( \frac{\sum S_i^2 - S_1^2}{S_1^2} \right)$$

The results of assessing the reliability of the questionnaire showed that calculated Cronbach's alpha for the questionnaire equals to 0.949. Since the calculated reliability coefficient is higher than 0.70, so the questionnaire of the research is desirably reliable.

4. Analyzing the findings of the research

4.1. Studying the hypotheses for the existence of significant correlation

$$\begin{cases} H_0 = \rho = 0 \\ H_1 = \rho \neq 0 \end{cases}$$

H0 shows the 0 correlation between the two variables and implies that there is no significant correlation between the dependent and independent variables. Conversely, H1 show that there is a significant correlation between the two variables.

Table 4.1. Results of Pierson correlation coefficient on the research hypotheses

Independent variable	Dependent variable	#	Pierson correlation coefficient	Significance level
Work design	Organizational citizenship behaviors	303	0/480	0/000
Organizational citizenship behaviors	Organizational entrepreneurship	303	0/271	0/000
Work selection	Organizational citizenship behaviors	303	0/428	0/000
Training	Perceived organizational support	303	0.544	0/000
Performance appraisal	Perceived organizational support	303	0.452	0/000
Rewarding	Perceived organizational support	303	0/273	0/000
Participation	Perceived organizational support	303	0.165	0.109
Work security	Perceived organizational support	303	0/107	0.068
Functions of human resource management	Organizational citizenship behaviors	303	0.343	0.023
Perceived organizational support	Organizational citizenship behaviors	303	0.441	0.008

#### A) Correlation

Regarding the results of correlation test table, the significance level between variables of participation and perceived organizational support, and between work security and perceived organizational support is higher than 0.05, thus the zero hypothesis ( $p=0$ ) that is the hypothesis of the lack of correlation between the two variable is confirmed on these variables. On the other variables, since the significance level is less than 0.05 error level, thus the correlation between the variables are confirmed on the confidence level of %95.

#### B) Regression

First subsidiary hypothesis: Work design affects organizational citizenship behaviors through organizational entrepreneurship.

- 1- Regression of intermediate variable of organizational citizenship on the independent variable
- 2- Regression of dependant variable on intermediate variable
- 3- Regression of dependant variable on independent variable and intermediate variable

In each equation, the regression coefficients was assessed and tested. In studying the regression models it was specified that the direct fitness of independent variable of work design on intermediate variable of organizational citizenship behaviors, regression model is significant and this variable affects the organizational citizenship behaviors. Moreover, in direct fitness of intermediate variable of organizational citizenship behavior on dependant variable of organizational entrepreneurship, regression model is significant and affects the variable of organizational entrepreneurship. But when we assessed the effects of two variables of organizational citizenship behavior and work design simultaneously in a regression model, we found out that the variable of work design is not significant (significance level: 0.150). This means that the variable of work design does not affect the organizational entrepreneurship directly. Since the variable of work design affects the organizational citizenship behaviors, and this variable itself affects the organizational entrepreneurship, we can conclude that work design affects organizational entrepreneurship through organizational citizenship behaviors. Thus the first hypothesis is confirmed.

Second subsidiary hypothesis: Work selection affects organizational entrepreneurship through organizational citizenship behaviors. To assess this hypothesis, first we use correlation test and the regression. On the first hypothesis we studied the correlation between organizational citizenship behaviors and organizational entrepreneurship and the regression of these two variables. Since both of

them were significant and it was specified that the variable of organizational entrepreneurship is affected by organizational citizenship behaviors, thus we can use this results in coming hypotheses.

Since the significance level for the variable of organizational citizenship behavior equals to 0.030 and less than 0.05, thus the variable of organizational citizenship behaviors in the fitted regression model has a significant relationship with the dependant variable, i.e. organizational entrepreneurship. Moreover, the significance level of the variable of Work selection in fitted regression model is less than 0.05, thus it is significant. The value of standardized regression coefficient for the variable of Work selection is 0.499.

Besides, using the provided regression models we observed that the in direct fitness of the independent variable of Work selection on the intermediate variable of organizational citizenship behavior, regression model is significant and this variable affects the organizational citizenship behavior. Moreover, in the direct fitness of intermediate variable of organizational citizenship behavior on dependant variable of organizational entrepreneurship, the regression model is significant and this variable affects the organizational entrepreneurship. Besides, when the two variables of organizational citizenship behavior and work selection are assessed simultaneously in a regression model, we observed that the variable of work selection is significant. This means that the variable of work selection directly affects the organizational entrepreneurship and since the variable of work selection affects organizational citizenship behaviors and this variable itself affects organizational entrepreneurship, thus we can conclude that work selection affects organizational entrepreneurship through organizational citizenship behaviors and the second hypothesis is confirmed.

Third subsidiary hypothesis: Training affects organizational entrepreneurship through perceived organizational support.

On the first hypothesis we studied the correlation coefficient between organizational citizenship behaviors and organizational entrepreneurship and the regression of these two variables. Since both of them were significant and it was specified that the variable of organizational entrepreneurship is affected by organizational citizenship behaviors, thus we can use this results in coming hypotheses.

Since the significance level for the variable of perceived organizational support equals to 0.007 and less than 0.05, thus this variable in the fitted regression model has a significant relationship with the dependant variable, i.e. organizational

entrepreneurship. The value of standardized regression coefficient for the variable of perceived organizational support is 0.393.

Besides, using the provided regression models we observed that the in direct fitness of the independent variable of training on the intermediate variable, the regression model is significant and this variable affects the perceived organizational support. Moreover, in the direct fitness of intermediate variable of organizational support on dependant variable of organizational entrepreneurship, the regression model is significant and this variable affects the organizational entrepreneurship. Besides, when the two variables were assessed simultaneously in a regression model, we observed that the variable of training is significant. This means that the variable of training directly affects the organizational entrepreneurship and since the variable of training affects perceived organizational support and this variable itself affects organizational entrepreneurship, thus we can conclude that training affects organizational entrepreneurship through perceived organizational support and the third hypothesis is confirmed.

Fourth subsidiary hypothesis: Performance appraisal affects organizational entrepreneurship through perceived organizational support.

Since the significance level for the variable of perceived organizational support equals to 0.012 and less than 0.05, thus this variable in the fitted regression model has a significant relationship with the dependant variable, i.e. organizational entrepreneurship and the significance level of the variable of performance appraisal in fitted regression model is less than 0.05, thus it is significant. The value of standardized regression coefficient for the variable of performance appraisal is 0.512.

Using the provided regression models we observed that the in direct fitness of the independent variable of performance appraisal on the intermediate variable, the regression model is significant and this variable affects the perceived organizational support. Moreover, in the direct fitness of intermediate variable of organizational support on dependant variable of organizational entrepreneurship, the regression model is significant and this variable affects the organizational entrepreneurship. We can conclude that performance appraisal affects organizational entrepreneurship through perceived organizational support and the fourth hypothesis is confirmed.

Fifth subsidiary hypothesis: Rewarding affects organizational entrepreneurship through perceived organizational support.

Since the significance level for the variable of organizational citizenship behaviors equals to

0.069 and more than 0.05, thus this variable in the fitted regression model has not a significant relationship with the dependant variable, i.e. organizational entrepreneurship, but the significance level of the variable of rewarding in fitted regression model is less than 0.05, thus it is significant. The value of standardized regression coefficient for the variable of rewarding is 0.512.

Using three provided regression models we observed that the in direct fitness of the independent variable of rewarding on the intermediate variable, the regression model is significant. Moreover, in the direct fitness of intermediate variable of organizational support on dependant variable of organizational entrepreneurship, regression model is significant and this variable affects the organizational entrepreneurship. But when the two variables of perceived organizational support and rewarding were assessed simultaneously in a regression model, we observed that the variable is not significant. This means that the variable of rewarding does not directly affect the organizational entrepreneurship and since the variable of training affects perceived organizational support and this variable itself affects organizational entrepreneurship, thus we can conclude that rewarding affects organizational entrepreneurship through perceived organizational support and the fifth hypothesis is confirmed.

Sixth subsidiary hypothesis: Participation affects organizational entrepreneurship through perceived organizational support.

Since the significance level for the variable of organizational citizenship behaviors equals to 0.470 and more than 0.05, thus this variable in the fitted regression model has not a significant relationship with the dependant variable, i.e. organizational entrepreneurship, but the significance level of the variable of participation in fitted regression model is less than 0.05, thus it is significant. The value of standardized regression coefficient for the variable of rewarding is 0.473.

Using three provided regression models we observed that the in direct fitness of the independent variable of participation on the intermediate variable, the regression model is not significant. Moreover, in the direct fitness of intermediate variable of organizational support on dependant variable of organizational entrepreneurship, regression model is significant and this variable affects the organizational entrepreneurship. But when the two variables of perceived organizational support and participation were assessed simultaneously in a regression model, we observed that the variable is not significant. This means that the variable of participation does not directly affect the organizational entrepreneurship and since the variable of participation does not affect

perceived organizational support, we can conclude that participation does not affect organizational entrepreneurship through perceived organizational support and the fifth hypothesis is rejected.

Seventh subsidiary hypothesis: Work security affects organizational entrepreneurship through perceived organizational support.

Since the significance level of this variable is 0.455, thus the regression is not significant and the fitted regression model is not suitable for the data. Thus we can conclude that work security does not affect organizational entrepreneurship through perceived organizational support, and thus the seventh hypothesis is rejected.

First main hypothesis: Functions of human resource management affect organizational entrepreneurship through organizational citizenship behaviors. The results of regression test show that there is a significant relationship between the functions of human resource management and organizational citizenship behaviors and organizational entrepreneurship. The functions of human resource management have a positive and significant relationship with organizational citizenship behaviors, so that its regression equation is as follow:

$$Y \text{ citizenship behavior} = 1.963 + 307 X \text{ human resource} + \varepsilon$$

The first number or constant is 1.96 that is a considerable value and it shows that organizational citizenship behavior stands in a high level despite the weakness of human resource. This issue shows a radical relationship between the functions of human resource management and organizational citizenship behaviors, because the organizational citizenship behaviors naturally depend on the existence of human resource. The continuity of changes are less dependent to each other and for every improvement in the situation of the functions of HRM, we only expect 3% increase in the organizational citizenship behaviors.

Second main hypothesis: Perceived organizational support affects organizational entrepreneurship through organizational citizenship behaviors

Since the significance level of this variable is 0.000 and less than 0.05, thus the variable of organizational citizenship behavior in the fitted regression model has a significant relationship with the dependent variable, i.e. organizational entrepreneurship. The value of standardized regression coefficient for the variable of organizational citizenship behavior is 0.406. Also in

this regression, the width from the origin is significant.

Using three provided regression models, it can be observed that in the direct fitness of independent variable of perceived organizational support on the intermediate variable of organizational citizenship behavior, the regression model is significant and this variable affects organizational citizenship behaviors. Moreover in the direct fitness of the intermediate variable of organizational citizenship behavior on the dependant variable of organizational entrepreneurship, the regression model is significant and this variable affects the organizational entrepreneurship. In other words a perceived organizational support affects organizational entrepreneurship through organizational citizenship behavior and thus the second main hypothesis is confirmed.

#### 4.2 Research models

Since some of the relationships are not statistically confirmed, the revised model of the relations can be presented as follow.

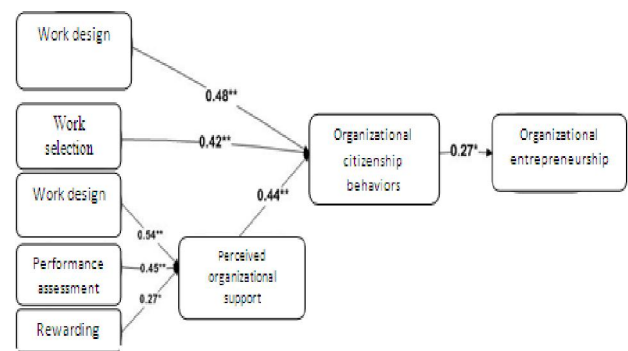


Fig. 4.5. Revised model of the relationships

In above models, all significant relationships at level of 0.01 are shown with \*\* and all significant relationships at the level of 0.05 are shown with \*.

#### 4.3. Path analysis

The following model is presented for the research. In this regard, first we test the hypotheses with related statistical tests through SPSS software. Now we study the research model in the structural equation with LISREL software. The following chart shows the path and most important outputs of the software.

Studied indexes in the structural equation of the research are as follow:

GFI and AGFI indexes: GFI value has to be equal to or more than 0.90. Here the GFI value is 0.91 that is higher than 0.9. Moreover, the value of



AGFI has to be a number between 0 and 1. Here the AGFI value is 0.86.

RMSEA index: the value of this index for good models is 0.05 or less. Models with 0.1 RMSEA have a weak fitness. Here the value of RMSEA is 0.042.

Chi Square: the quantity of Chi-square (Chi2) depends heavily on the sample size. In this model, we have:

$$X^2 - 470.34 \quad df=66$$

$$X^2/df=470.34/66=7.126364$$

NFI and CFI indexes: NFI is accepted for the values higher than 0.90 and shows the fitness of the model. CFI is accepted for the values higher than 0.90 and shows the fitness of the model. Here we have:

CFI=0.9  
NFI= 0.94

And both of them are higher than 0.9 and so they are acceptable.

The probability value of the model is 0.06 that is higher than 0.05. H0 which means the suitability of the model is acceptable. Thus the proposed model of the research is significant and suitable.

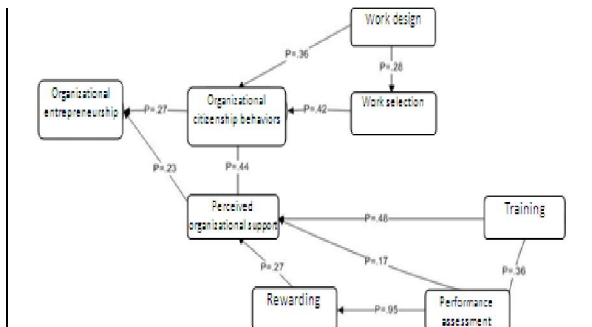


Fig. 4.8. Path analysis model

The explanations of each path are presented in the following table.

Table 4.52. Total Effects of the variables

Variables	Dependent variable → Perceived organizational support
Training	Direct effect – 0.48 Training → Perceived organizational support Training → Performance appraisal → Perceived organizational support $(0.36)*(0.17)=0.06$ Training → Performance appraisal → Rewarding → Perceived organizational support $(0.36)*(0.95)*(0.27)=0.15$ Total indirect effects= 0.15 Total direct and indirect effects: 0.63

Performance appraisal	Direct effects – 0.17 Performance appraisal → Rewarding → Perceived organizational support $(0.95)*(0.27)=0.25$ Total indirect effects= 0.25 Total direct and indirect effects: 0.43
Rewarding	Direct effects – 0.27 Total indirect effects= 0 Total direct and indirect effects: 0.27

Variables	Dependent variable → Organizational citizenship behaviors
Work design	Direct effect – 0.36 Work design → Citizenship behavior Work design → Work selection → Citizenship behavior $(0.28)*(0.42)=0.12$ Total indirect effects= 0.12 Total direct and indirect effects: 0.48
Work selection	Direct effects – 0.42 Work selection → Organizational citizenship behavior Total direct and indirect effects: 0.45

Variables	Dependent variable → Organizational Entrepreneurship
Organizational citizenship behaviors	Direct effect – 0.27 Citizenship behavior → Organizational entrepreneurship Total direct and indirect effects: 0.27
Perceived Organizational support	Direct effects – 0.23 Perceived organizational support → Organizational entrepreneurship Perceived organizational support → Organizational citizenship → Organizational entrepreneurship $(0.23)*(0.44)=0.10$ Total indirect effects= 0.10 Total direct and indirect effects: 0.23

5. Conclusion

Concluding the research hypotheses

Hypotheses	confirmed/ rejected
Work design affects organizational entrepreneurship through organizational citizenship behaviors.	Confirmed
Work selection affects organizational entrepreneurship through organizational citizenship behaviors.	Confirmed
Training affects organizational entrepreneurship through perceived organizational support.	Confirmed
Performance appraisal affects organizational entrepreneurship through perceived organizational support.	Confirmed
Participation affects organizational entrepreneurship through perceived organizational support.	Rejected
Rewarding affects organizational entrepreneurship through perceived organizational support.	Confirmed

Work security affects organizational entrepreneurship through perceived organizational support.	Rejected
Functions of human resource management affect organizational entrepreneurship through organizational citizenship behaviors.	Confirmed
Perceived organizational support affects organizational entrepreneurship through organizational citizenship behaviors.	Confirmed

### Suggestions

As you saw, obtained results showed that 7 hypotheses out of the 9 were confirmed. Thus due to the importance of such functions of human resource management in affecting the organizational entrepreneurship, here we offer some suggestions for each of the components and related factors as follow:

#### A) Correct work design

Since work design is being done periodically and not continuously, following issues can be suggested as the solution to increase the level of innovation and entrepreneurship in the organizations:

- Providing a flexible definition of the activities
- Assigning the activities to each job regarding the skills and abilities of the available forces
- Work designing on a basis that the employees can find the opportunity to offer their suggestions and personal innovations

#### B) Work selection

The results of the researches show that around 7 percent of the entrepreneurial behaviors are affected by the process of work selection. Accordingly, following suggestions can be offered:

- Considering the tests of talent, especially the tests of assessing the creativity in employment tests.
- Selecting capable persons, especially those with high motivations

#### C) Training

The results show that 23% of innovative and entrepreneurial behaviors are affected by good training programs. In this regard, the followings can be suggested:

- Designing and implementing periodical training courses in order to increase the skills and abilities of the employees
- Conducting training courses in order to encourage the employees for innovation and creativity

#### D) Performance appraisal

According to the results of the research, 16 percent of the entrepreneurial behaviors are affected by the performance appraisals. Thus the followings are suggested:

- Implementing the programs for performance appraisal in organizations that miss such programs
- Considering the parameters of innovation and creativity in performance appraisal programs
- Encouraging the employees to display creative behaviors and considering and valuing such behaviors in performance appraisal programs

#### E) Rewarding

The results showed that rewarding can be a good stimulus to encourage the innovations and creativity among the employees. Accordingly, the followings can be suggested:

- Considering the rewards for offering any innovative plan and suggestion among the employees
- Making the parallel between innovation and proposed rewards

#### F) Participation and work security

Despite general imaginations, the results showed that participation and work security have not considerable effect on entrepreneurial behaviors. The most important reasons of this weak effect are as follow:

- It seems that in the opinions of the employees, the duration of being in the organization has no effect on personal innovation and entrepreneurial behaviors. The motivation for being innovative is generally created by the training and supports.
- In governmental and cultural organization the employees usually enjoy high work security and they are rarely in situations in which they feel the risk of being insecure. Accordingly they have not a realistic assessment of low work security. Thus they do not relate the innovative behaviors to work security.
- In relation to participation, it is mentioned that before conducting the research we felt that participation has a significant relationship with entrepreneurial behaviors, while the results showed that there is not such significant relationship. To explain this contradiction, it should be mentioned that in cultural and social organizations (especially governmental ones) it seems that inter-personal relationships are stronger than private organizations. However in such organizations the activities are defined and determined individually, and the persons are responsible for their performances and groups have a weak role in developing the affairs. This is why the role of participation in entrepreneurial behaviors is low.

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