

Identify and Rank the Factors Affecting the Willingness of Workers to Entrepreneurship in the Copper Industry with AHP Approach - A Review

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Abstract

Background/Objectives: Entrepreneurship has key role in the economic growth and development in different communities. This research utilizes previous research; identification factors of affecting the willingness of employees to entrepreneurship, using the AHP method to prioritize them. **Methods/Statistical Analysis:** The purpose of the research study and description of group solidarity is the way the surveys. Data collected using questionnaire and data collection method is field. The population consisted of 8 copper industry executives have formed due to the limited sample, the whole community is involved. In the process of analyzing the information of Expert Choice software is used. **Findings:** The results showed that on the whole the most important risk factor in the willingness of employees is entrepreneurial. After that, the knowledge, the technology of the day, top management support, confidence, financial resources, structure, flexible, challenging work, matching behavior and the dynamics of leadership as the most important factor affecting the willingness of employees to entrepreneurship were identified. **Application/Improvements:** This study can help managers to identify factors influencing on entrepreneurship employee in major industry. It can also be a guide for future research on this subject.

Keywords: AHP, Copper Industry, Employees, Entrepreneurship

1. Introduction

The current pace of change is such that identify and predict changes in the steady state and outside mirrors and past experiences and achievements in ensuring future success is not required. It can be said that the present age is the age of discontinuity and predictable and binding decision of the idea on the basis of changes in the world, these communities further towards creativity and innovation and entrepreneurship in the lead and these can be seen

in the amount of their entrepreneurs¹. Entrepreneurship in different countries in a multi-level engagement in the sense of job creation, both in the sense of change through innovation and process improvement and as a key factor in economic growth, is desperately needed. Entrepreneurship can be discussed even in modern times in any country considered one of the main strategies².

Entrepreneurship is one of the development tools because there are people creating entrepreneurs will be success. Also, due to increased competition in emerging

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markets today and creating a sense of mistrust in traditional practices need more entrepreneurs in the organization felt. In this connection, in dynamic and flexible organizations that are in our own time, discover and develop entrepreneurs. Each organization in order to produce spontaneous and innovation requires the right structures and entrepreneur. Ministry of internal talent that can be used to give other organizations will be in a short time³. Entrepreneurship in general and entrepreneurship in particular, played a key role in the economic growth and development in communities. The experiences of countries such as Japan's development centered around Asia, China, Malaysia and South Korea full of activities has been outstanding entrepreneurs and now the development of entrepreneurs and their self-pride⁴.

Given the importance of entrepreneurship and entrepreneurs experience in the development of many countries and taking into account the economic difficulties facing our country, promote and disseminate the concept of entrepreneurship as an underlying support for the culture of entrepreneurship and elder trained people with entrepreneurial spirit and the individual, group or organization for developing countries, including our country, Iran, has great importance⁵. But what factors affect the willingness of employees to entrepreneurship? This is a question that may be etched in the minds of many researchers so far. Numerous studies have been done in this area indicates for example, Lober internal factors, external environment and the factors influencing entrepreneurship characteristics noted⁶. Nawaser et al state that Digman believes that build the knowledge and expertise to build the personality characteristics such as confidence, risk and control focus on entrepreneurship⁷. We will talk more in research in this field in the background. But what is the focus of this study is to identify and rank the factors affecting the willingness of employees to be entrepreneurial.

As noted above, entrepreneurship is essential factors for developing countries like our country. But another issue that a lot of research in this area is not considered, in other words, the degree and the rank and importance of the factors affecting entrepreneurs. That is to say that the factors influencing entrepreneurship of employees largely has been considered in previous research, but what is the missing link has the order of priority of these factors. Because in addition to the different needs of different organizations that would provide entrepreneurship, they are also important differences. For example, do

not be so important in an industrial organization needs a service organization assumed equal or even in industrial organizations with different tasks and objectives under the entrepreneurship. In this study, using previous research, the identification of factors affecting the willingness of employees to entrepreneurs, we have to prioritize them using AHP method. The study was conducted in the copper industry. Since the copper industry is one of the local industries and many staff is employed, as well as providing entrepreneurial solutions to increase revenue, the industry will be very economical and hence national income will increase, this place was chosen as the domain industry.

2. Internal Studies

Mahdavi et al research idol as a "decisive influence on entrepreneurs indicators of state universities and ranking of universities from the perspective of" the combination of Delphi, Vikor analysis of the factors influencing the creation of 22 networks were identified entrepreneurial university⁸. Abdolahian et al in his review the prioritization indicators FANP by their entrepreneur skills⁹. The study was conducted at the University Jihad; it was found that among the main indicators of the decision in the first priority Ahmadi et al examined the influence of personal and environmental factors on entrepreneurial behavior. To investigate the effects of these two variables, the chi-square test and software EO Amos was used. Results showed that there were significant factors associated with entrepreneurial characteristics and it was found that the impact of expectations and perception of the environment has a significant and positive impact on the strengthening of entrepreneurial behavior¹⁰. Mohammadi et al the relationship between personality traits tends to be entrepreneurial response. The results of this study showed that there are a significant positive relationship between women personality traits and tend to be entrepreneurial³. Rezvani et al investigate the role of entrepreneurialism through emphasis on the relationship between top management on the performance of state-owned banks. The survey of 13 items was measured by trends in entrepreneurship was confirmed¹¹. Beigi Nia et al examined the impact of the type required to pay interest to entrepreneurs. The study was conducted at the headquarters of the National Iranian Oil Company, was found there is a significant positive relationship between the need for achievement, need for power, the need to respect the

need for self-actualization, biological needs, social needs and the need for security and the desire of employees to entrepreneurs⁵.

Imani Pour and Ziodar investigate the relationship between entrepreneurial orientation and performance of the company's sales representative in Tehran's Iran Insurance Company. In this study, four factors flexible structure, effective organizational climate, culture, creativity and innovation and ultimately drive backup capability and motivation of individual employees as of entrepreneurialism were introduced¹².

2.1 Foreign Studies

Galord with respect to individual differences between men and women entrepreneurs, such as the factors affecting the performance of individual factors, organizational factors, factors of industrial environment, resources and strategies and policies discussed. The performance of women entrepreneurs in the survey with three components of financial performance, the performance of personal and social functioning was measured¹³. Halepota in their study concluded that in order to increase the enthusiasm of entrepreneurs, options such as organizational rewards, job satisfaction and strengthening innovation management are effective¹⁴.

Ryan and Deci with a set of basic research in the field of entrepreneurship education in the United States of America has done it concluded that although the use of technology in teaching entrepreneurship is important but these new technologies but also new regardless of the human aspects of entrepreneurship, will not be successful¹⁵. Pritchard and Ashwood in the field of entrepreneurial spirit in organizations providing social services, organizations place great emphasis on the study of entrepreneurial behavior. He plans to use the main motivation for the proposition to increase the entrepreneurial spirit in the organization has introduced¹⁶.

Wakkee et al make employees' jobs through traditional service companies examined. In this study, two factors led to the creation of effective and creative staff noted and its impact on entrepreneurial behaviors was assessed and the impact of these two factors was confirmed¹⁷. Klarner et al to the motivational factors that lead to employees of entrepreneurs in the organization noted. In this study it was found that factors such as structure, top management attention, flexibility and control to create motivation for employees to stay in organization become entrepreneurs¹⁸.

2.2 The Hierarchical Structure of Literature

A review of the literature revealed several studies and identify factors that affect the willingness of employees to have entrepreneurship. Each of these studies with the goal and the option to select and review specific cause has been determined. After a review of the literature identified 10 factors affecting entrepreneurs that include: confidence¹⁹. The ability to apply a calculated risk²⁰, the positive response to the challenging work¹, the ability to adapt to the behavior of others¹⁹, having knowledge²¹, updated technology in the organization⁵, top management support²⁰, the financial resources required¹, flexible organizational structure⁵, dynamism and good leadership²⁰. After identifying 10 of the most important factors affecting the willingness of employees to entrepreneurship, with a little care it became clear that these factors may be more comprehensive in the categories. The consultation and the comments 2 academic experts and 3 working experts in Kerman copper industry, 10 factors identified in the framework of variable organizational factors and factors affecting willingness to entrepreneurship category.

In category performed 5 factors: confidence, the ability to use a calculated risk, the positive reaction to the jobs challenge, the ability to adapt to the behavior of others, having knowledge as factors in date technology in the organization, top management support, required financial resources, organizational structure flexible, suitable dynamic leadership were classified as organizational factors. Finally, according to the AHP hierarchical structure in Figure 1 was brought.

3. Methodology

The research in term of purpose is descriptive and in term of method are surveys. Data collected using questionnaire and data collection method is field. The questionnaire consisted of questions using a paired comparison with a range of nine options and by the researcher and academic and industry experts to assess the validity and approved. Since the AHP technique was used for data analysis and necessary for the implementation of this technique is access to information experts, the population consisted of 8 of copper industry executives, each of them have more than 20 employees have formed. Due to the limited sample and using all of society, all community members are included. It is in the process of analyzing the information of Expert Choice software is used.

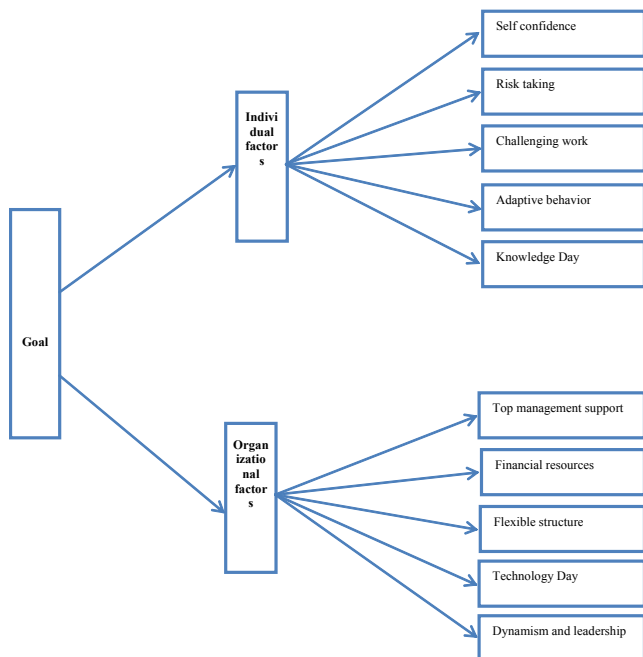


Figure 1. The research hierarchical model.

4. Research Findings

After determining the objective criteria and the relevant sub-criteria survey questionnaire was distributed among the eight heads of copper industry. Paired comparisons between criteria and sub-criteria comparison test was performed for each criterion. Paired comparisons of the numbers one to nine in terms of importance and was conducted in accordance with the Table 1.

After completing the questionnaire, AHP software expert choice was made. At first paired comparison between the two main criteria were personal and organizational. The output of the software and the results presented in Figure 2 and Table 2.

As is clear from the Table 2 and the chart above, according to experts more important factors to organizational factors tend to entrepreneurship employees. Also, given that only paired comparison was done between the two factors and incompatibility index for comparison is zero. Compare the following two criteria to individual and organizational measures were individually and the outputs of software and results presented in Figure 3 and Table 3.

The above results show the risks relative to the degree of importance of the 0.362 is most important factor in people tend to employees entrepreneurship. Of knowledge, confidence, work, challenge and adapt their behavior in the next ranking. For organizational factors were also ranked.

Table 1. Paired comparisons preference values

The degree of importance	Definition
1	Equally important
3	Rather preferred
5	Many prefer
7	a lot of prefer
9	extra prefer
8,6,4,2	Intermediate value judgment



Figure 2. The relative importance of criteria to target.

Table 2. Ranking criteria to target

Rank	Criterion	The relative importance	Inconsistency Index
1	Individual factors	0.566	0
2	Organizational factors	0.433	



Figure 3. The relative importance of the individual factors sub- criteria than objective.

Table 3. Ranking the individual factors sub-criteria than objective

Rank	Criterion	The relative importance	Inconsistency Index
1	Risk taking	0.362	0.008
2	Knowledge Day	0.302	
3	Self-confidence	0.166	
4	Challenging work	0.094	
5	Adaptive behavior	0.076	



Figure 4. The relative importance of the organizational factors sub-criteria than objective.

Table 4. Ranking the organizational factors sub-criteria than objective

Rank	Criterion	The relative importance	Inconsistency Index
1	Technology Day	0.348	0.03
2	Top management support	0.290	
3	Financial resources	0.176	
4	Flexible structure	0.124	
5	Dynamism and leadership	0.063	

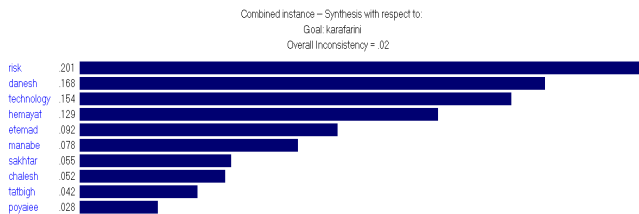


Figure 5. The relative importance of the individual and organizational factors sub-criteria to objective.

Table 5. Ranking the individual and organizational factors sub-criteria to objective

Rank	Criterion	The relative importance	Inconsistency Index
1	Risk taking	0.201	0.02
2	Knowledge Day	0.168	
3	Technology Day	0.164	
4	Top management support	0.129	
5	Self-confidence	0.092	
6	Financial resources	0.078	
7	Flexible structure	0.055	
8	Challenging work	0.052	
9	Adaptive behavior	0.042	
10	Dynamism and leadership	0.028	

According to copper industry experts, the technology of the day with a relative importance grade of 0.348 is most important organizational factor in employees tend to entrepreneurship in the organization. Support of senior managers with degrees in secondary 0.290 and then of financial resources, flexible and dynamic structure and leadership are important in the next grade. The software uses the weight of the individual and the organization in general to investigated and prioritized. The results of this stage presented below.

As can be seen in all the most important risk factor in the willingness of employees is entrepreneurial. After that, the knowledge, the technology of the day, top management support, confidence, financial resources, structure, flexible, challenging work, matching behavior and the dynamics of leadership as the most important factor affecting the willingness of employees is entrepreneurial.

It is at any stage of the incompatibility rate was calculated by the software. The index is used to assess the compatibility of the judgment. If the index is less than 0.1 compatibility conflict will be accepted in the judgment or the judgment should be revised. As the above results for all stages of inconsistency index is less than 0.1 and therefore judgments are good compatibility.

5. Conclusion

This study aims to contribute and review of the literature about the factors that led to the breeding of such a workforce of 10 is identified and individual and organizational factors examined. The results showed that in the categories of factors plays a much more important than organizational factors in creating an entrepreneurial workforce which was already expected. What is clear is that creativity and innovation to create more entrepreneurs and interpersonal factors related to organizational and external factors.

The internal factors are known, it was found that the risk of status, self-esteem, behavioral practices and compliance challenges are most to least important. As is known, the results suggest that the risk for entrepreneurs and risk-taking is the most important factor. The dynamism and leadership in the priority can also return it to its creative individuals often rely on innovation and entrepreneurship as well as monitoring and attention from their superiors as leader and perhaps in some cases because such people have unique psychological characteristics with the opposite results.

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