

Original Paper

A Review for Studying the Effect of Technical and Vocational Role in Creating Employment and Reinforcement of Graduates Entrepreneurship Case Study (Shiraz Bahonar Technical and Vocational Center)

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Abstract

The aim of this study was to clarify the role of technical and vocational college in employment and reinforcement of graduates, entrepreneurship in 2012-13years. This study is a survey research. In order to implement this study, was used of one researcher made scale with 31-Item. Reliability and Validity of the scale was approved with content validity and Cronbach's alpha. For data collection was used a sample of graduates with stratified random sampling in differentiate the degree and field of study. Analysis of the data showed that: 1-the significant relationship there is between Employment and Reinforcement of graduates, Entrepreneurship. Respectively, Dimensions: the use of the talents and abilities of subordinates, delegating to subordinates, desire for risky, Moral character, emphasis on modern academic methods, the use of human and material resources have the ability to predict graduates employment. But dimensions: saving resources, and hands and feet of state laws and regulations resources have not the ability to predict graduates employment. 2-Between Employment and Reinforcement of graduates, Entrepreneurship according to their marital status there is a significant positive difference. 3-Between Employment and Reinforcement of graduates, Entrepreneurship according to their Degrees there is a significant positive difference. 4-Field of Study In increase Employment and Reinforcement of graduates, Entrepreneurship had a significantly positive

effect.

Keywords

technical and vocational college, employment, reinforcement of entrepreneurship, graduates

1. Introduction

The entrepreneurship is a new technical-economical phenomenon which has revolted the world of technology and economics by its amazing consequences, nowadays, training entrepreneurship is becoming to one of the most important and the widest functions of university (Ahmadpoor, 2011). Training entrepreneurship could be one the most effective methods to facilitate transporting graduates population to the labor market. Studies in Europe has indicated that such trainings could up bring persons more responsible and make them an entrepreneur or an entrepreneurial thinkers, and successfully make them successful and risk acceptors in business challenges (Urbano, 2008). "The organization of technical training", as the unique trustee of informal technical trainings, has acted seriously to highlight the role of these trainings.

Line up the skills training system, considering the holistic scientific map, fastening and reinforcing the relationship between skill trainings competency and the market needs, network the active stakeholders in skill training system, increasing the capacity of competitiveness for businesses and institutes and training centers and developing innovation and national technology are included of the important actions which the organization has done for realization of skill and technology comprehensive system and the sub-systems. These actions are as bellow:

1-skill and technology training system

2-professional competence

3-the employment eligibility system (Zein & Parand, 2012)

Nobody is found absolute entrepreneur or absolute non-entrepreneur, in other words somebody could be entrepreneur in one field and in one other field, he does not have the characteristics of entrepreneurship. Therefore, we can conclude that ever body has the entrepreneurship characteristics, but the difference is that these characteristics are in somebody more and in somebody less (Salehi et al., 2004). Therefore, this research has tried to explain the role of Shiraz BA-HONAR institutes and technical and vocational college in creating jobs and reinforcement of graduates' entrepreneurship in 2012-2013 years.

1.1 Technical Training

Technical training must go beyond treating people for special occupation, which provides the science, and skills for them. To achieve such goal, the cultural content of the technical trainings should have a level in which the inevitable specialization in training does not block the way of open interests (Khalaghi, 2011). The word, entrepreneurship, has been obtained of a French route which means,

“undertake” and also originated from broker or dealer, and that is the concept which is reviewed by variable point of view. Kanton, who is the inventor of the word entrepreneurship, knows the entrepreneur person as a risk acceptor who buys a commodity by clear cost and sells it by unknown cost. Cochran knows the entrepreneur as a coordinator and synthesizer of production factors, however he does not consider special characteristic for him (Khodadad, 2011).

1.2 Entrepreneurship

Entrepreneurship is the innovation process and taking advantages of opportunities by lots of effort and perseverance, with accepting financial, socially and mentally risks which is done by the motivation of financial gain, achievement, personal satisfaction and independence (Hisrich, 2012).

Different entrepreneurship models:

1.2.1 Content Models

1.2.2 Process Models: The Process Models Include Two Parts

1.2.2.1 Event Process

From this point of view, the entrepreneurship is kind of process in which the person plans, runs and controls the whole entrepreneurship activities. Moreover, such concepts exist which effect on each event in entrepreneurial process.

1.2.2.2 Multi-Dimension Process

From this point of view, entrepreneurship is a multi-dimension and complex process in which all factors including the entrepreneur person and his characteristics, his skills and his management methods, culture, strategy, structure, system and organization (Ahmad, 2011). Hezar Jaribi (2012) has shown in his research that there is a reliable relationship between entrepreneurship and the courses of training personal skills, development motivation, risk, need to success and innovation. Heydari and Shafiee Ghasr (2012) have emphasized in their research on the need of new attitude in educational planning in each cycle due to entrepreneurship criterion and society required. Zamani (2011) offers in his research for recovery of agriculture situation in higher education for training quality expert and required, increasing practical courses, the more relation between the higher education centers of agriculture and executive organs and farmers, create the entrepreneurship and free self-employment spirit. The results of Amin Bidokhti (2010) showed the technical trainings can highly create occupation for learners in every part of agriculture, industry and services and also the technical training centers could act much successfully in providing occupational opportunities and supplying experts. Jahangiri (2010) expresses in such research about the role of higher education system in developing entrepreneurship, in a higher education center, for creating necessary changes in order to be going to entrepreneurship, there is need to structural changes, system changes and the content of educational plans, change in higher education members' culture and propagation the entrepreneurship culture. Chambers (2012) has emphasized in his study to reviewing plans, study content and executing training

courses for different ages of educational centers in order to converting traditional university to an entrepreneur university.

Baharun and Sheikh Ahmad (2012) have observed during their research that learning entrepreneurship would decrease the probability of the graduates' success in creating independent jobs. Their research results shows that the entrepreneurship is learnable, moreover, it is necessary to present a course as Entrepreneurship University. L & D (2011) have resulted during their research that the scientific-practical trainings for preparing their students for employment, must present entrepreneurship trainings in their educational programs. Rabinson et al. (2010) have resulted according to their research that attitudes are the best predictors for entrepreneurial tendencies. Also it can be expressed that attitudes are learned and when they are created by family education, social environment and job, we could change them by training and learning. According to this, the rate of people attitude to entrepreneurship and its kind could impress the activity level in such field. Galloway (2009) observed during his research that training entrepreneurship impact on the students' innovation and their self-confidence and their communication and management skills. English and Jones (2009) observed during their study that by entrepreneurship training process and increasing independency in people, they would believe their abilities for business opportunities and their science and skills would increase. Wesper (2009) concluded during his research that training entrepreneurship could impress people tendency for entrepreneurial proceedings and according to this, he suggested increasing the entrepreneurial attitude and operation by training.

2. Method

This research is a survey research and the purpose is applied, considering the article expresses the role of Shiraz-Bahonar institutes and technical and vocational college in reinforcement entrepreneurship and the graduates opinion is determined in 2012-2013 years is tested.

2.1 Research Hypothesis

2.1.1 Reinforcement Aspects of Entrepreneurship Is Effective on Employment of Shiraz Ba Honar Technical and Vocational College Graduates in 2012-2013 Years

2.1.2 Educational Programs of Bahonar Technical and Vocational College Are Effective on Creating Employment and Reinforcement Entrepreneurship of Graduates, Considering Their Marital Status

2.1.3 Educational Program of Bahonar Technical and Vocational College Is Effective on Creating Employment and Reinforcement Entrepreneurship of Graduates, Considering Their Degree of Education

2.1.4 Educational Program of Bahonar Technical and Vocational College Is Effective on Creating Employment and Reinforcement Entrepreneurship of Graduates, Considering Their Field of Study

2.2 Statistical Population

The research statistical population has been the whole Bahonar technical and vocational college graduates of 2012-2013 years for 440 people.

2.3 Statistical Sample and Sampling Method

Sample volume was calculated 205 people by using formula. samples were chosen stratified random, divided by their degree and field of education.

2.4 Research Tools

In this study, for determining the role of Shiraz Bahonar technical and vocational college in crating and reinforcement of entrepreneurship of graduates in 2012-2013 years by using a 31 questions scale based on theoretical foundations of entrepreneurship and contains 8 aspects.

This questionnaire consists of two parts: 1) demographics: first name, last name, field of study, sex (male and female), degree of education (bachelor), occupation (private or state), job title, status of employment (daily, temporary, permanent). The marital status (single, married). 2) is about entrepreneurship and the role of technical and vocational college in graduates' employment and consists of 31 questions and it is the type of Likert rating scale, which is designed in form of: certainly agree, agree no comment, disagree and certainly disagree. and the graduates must choose on option in front of each phrase.

3. Results

In this research, data are entered in a statistical software as SPSS and the different statistical methods are used according to research hypothesis. so that, descriptive statistic (frequency, percentage, average, standard deviation, etc.) and also inferential statistic (the t one group test, one-way analysis of variance, multiple regression analysis and simultaneous, and regression significant test) was used, which are introduced in order to describe data and analyze the hypothesis as following.

3.1 Descriptive Statistics

Distribution of frequency and percentage of marital status of graduates

Table 1. Distribution of Frequency and Percentage of Marital Status of Graduates

Marital status	Frequency	Frequency percent
single	86	0.42
married	119	0.58
total	205	100

As it's observed in the above Table, 0.42% graduates were single and 0.58% of them were married. The frequency chart of marital status of responses is presented as bellow:

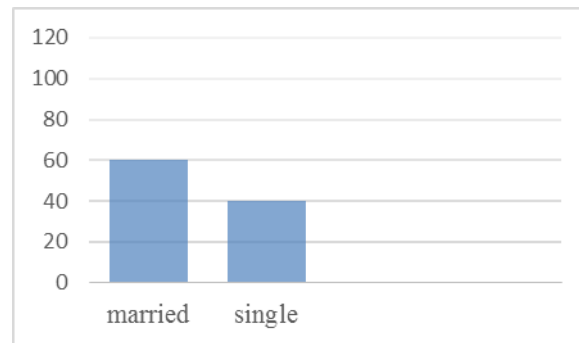


Figure 1. The Graduates Frequency of Marital Status

Table 2. Distribution of Frequency and Percent of Graduates Degree of Education

Degree of education	Frequency	Percent
Associate degree	140	0.68
bachelor	65	0.32
total	205	100

As its seen in Table 2, 068% of graduates have the associate degree, 0.32% have bachelor degree.

The chart of graduates' degree of education is presented as bellow:

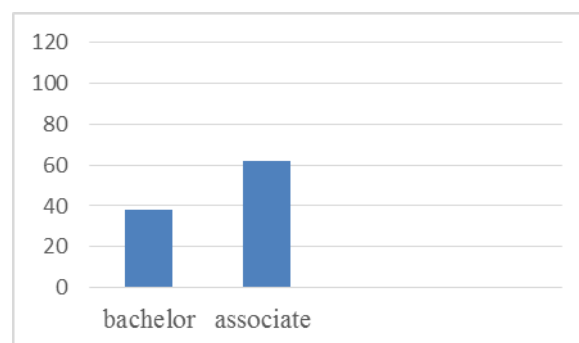


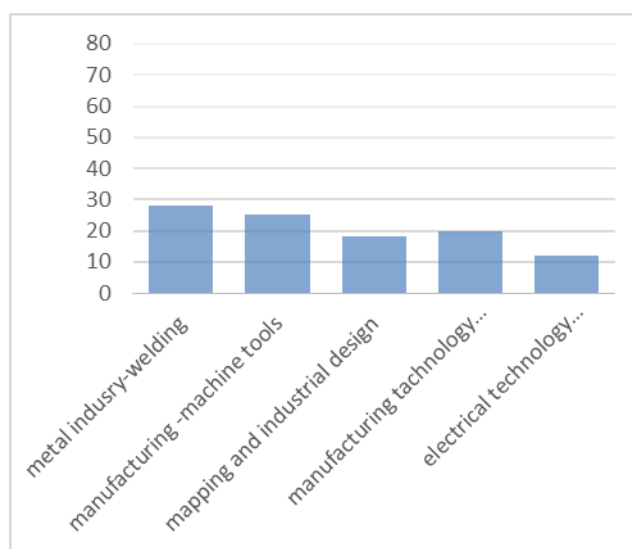
Figure 2. The Graduates Frequency of Degree

Table 3. Distribution of Frequency and the Percent of Graduates Field of Study

Field of study	Frequency	Percent
Metal industry-welding	53	0.26
Manufacturing-machine tools	52	0.25
Mapping and industrial design	35	0.17
Manufacturing technology engineering –machine tools	41	0.20
Electrical technology engineering -electronics	24	0.12
total	205 people	0.100

As it's observed in above Table, 0.26% of graduates' field of study is metal industry-welding, 0.25% are manufacturing –machine tools, 0.17% are mapping and industrial design, 0.20% are manufacturing technology engineering-machine tools and 0.12% are electrical technology engineering-electronic

The chart of graduates' field of study is presented as Figure 3.

**Figure 3. The Chart of Graduates' Field of Study**

First hypothesis: The aspects of reinforcement of entrepreneurship are effective on graduates of Shiraz-Bahonar technical college. To specify the amount of reinforcement of entrepreneurship effect on graduates' employment, the multiple regressions is used. The results are as bellow:

Table 4. Regression between the Reinforcement of Entrepreneurship and the Graduates

Model	R	R ²	Modified R ²	Estimated standard error
1	0.852	0.726	0.530	0.28

Table 5. The Regression Significance Test

Model	SS	Degree of freedom	MS	F	Significance level
Regression	4.172	7	0.673		
Remaining	20.019	197	0.102		
1 total	24.731	204		6.6	0.01

Table 6. Multiple Regressions between the Graduates' Reinforcement of Entrepreneurship and Employment

Model		Non	Standardized	Standardized	t	Significance level
		coefficient	Standard error	coefficient		
		B		Beta		
	constant value	4.809	0.510		15.528	0.000
	Mood characteristic	0.163	0.187	0.229	0.598	0.05
	The use of human and material resources	0.147	0.160	0.191	.0478	0.05
	Saving resources	0.136	0.143	0.007	0.088	NS
1	Tendency to risks	0.183	0.201	0.341	0.668	0.01
	Emphasize on new academic methods	0.159	0.172	0.195	0.551	0.05
	Use the talents and abilities of subordinates	0.202	0.238	0.481	0.920	0.000
	Delegation of authority to subordinates	0.197	0.220	0.472	0.873	0.000
	Cumbersome of rules and government regulations	0.144	0.158	0.009	0.094	NS

As it is observed, the multiple regressions between graduates' reinforcement entrepreneurship and employment is equal to 0.852. Using F test shows that the significant level of this coefficient is 0.01 and this indicates the significant relation between the graduates' reinforcement of entrepreneurship and employment. The amount of R² or determination coefficient is also obtained 0.726. This indicates that 72.6 percent of changes related to graduates' employment are due to reinforcement of entrepreneurship. Considering the calculated Beta coefficients for different aspects of reinforcement of entrepreneurship and the level of significant, it was determined that the respectively: using the talents and abilities of subordinates (Beta coefficient 0.481) delegation of authority to subordinates (Beta coefficient 0.472),

tendency to risks (Beta coefficient 0.341), mood characteristics (Beta coefficient 0.229), emphasize on new and academic methods (Beta coefficient 0.195), way of using the human and material resources (Beta coefficient 0.191), have the appropriate prediction power (significant level 0.01 and 0.05) for graduates' employment. However the saving aspects in resources (Beta coefficient 0.007) and cumbersome rules and public regulations (Beta coefficient 0.094) have appropriate prediction power for graduates' employment.

Second hypothesis: Educational programs of technical and vocational college have significant effect on graduates' creating employment and entrepreneurship due to the marital status.

To investigate this hypothesis, descriptive statistics and t mono group was used based on marital status (single and married) and the statistical information are given in Tables 9 and 10

Table 7. The Average and Standard Deviation of Employment and Reinforcement of Entrepreneurship Based on Marital Status

Marital status	Average	Standard deviation
Single	46.05	21.19
married	65.74	31.26

Considering the above table information, the average and standard deviation of singles is: $M=46.05$ and $S=21.19$ and in married is: $M=65.74$ and $S=31.26$. So the average value is more in married groups.

Table 8. The t One Group for Comparison the Graduates' Rate of Employment and Reinforcement of Entrepreneurship Based on Marital Status

Variable index	Average	Standard deviation	Calculated value	Significant level
Marital status	3	0.19	2.11	0.05

As it's shown by the information of Table 8, the calculated t is obtained 2.11 and its significant level is 0.05 ($p < 0.05$). So the marital status is an appropriate predictor for employment and reinforcement of entrepreneurship in graduates' opinion.

Third hypothesis: Educational programs of Shiraz Bahonar technical and vocational college have significant effect on graduates' employment and reinforcement of entrepreneurship, based on their educational degree.

To investigate this hypothesis, the descriptive statistic and the t mono group test was used based on educational degree (associate degree and bachelor) and the statistical information is given in Tables 9 and 10.

Table 9. The Average and Standard Deviation of Rate of Graduates' Employment and Reinforcement of Entrepreneurship Based on Their Educational Degree

Degree	Average	Standard deviation
Associate degree	26.09	26.09
Bachelor	41.04	22.98

Considering the above information, the graduates' average value and standard deviation is for associate degree: $M=89.29$ and $S=26.09$ and for bachelors: $M=41.04$ and $S=22.98$. So the average value is more in associate group

Table 10. The t One Group for Comparison the Graduates' Rate of Employment and Reinforcement of Entrepreneurship Based on Their Educational Degree

variable index	Average	Standard deviation	Calculated t	Significant level
Degree	3	0.13	1.28	0.01

As it's shown in Tables 4-10, the calculated t is obtained 1.28 and its significant level is 0.01 ($p < 0.01$). So the educational degree is an appropriate predictor for employment and reinforcement of entrepreneurship in graduates' opinion.

Fourth hypothesis: Educational programs of Shiraz Bahonar technical and vocational college have significant effect on creating employment and reinforcement of entrepreneurship for graduates, based on their field of study.

To test this hypothesis, the descriptive statistic and one-way analysis of variance was used which are given in Tables 11 and 12

Table 11. Average and Standard Deviation between Graduates' Rate of Employment and Reinforcement of Entrepreneurship Based on Their Field of Study

Field of study	Average	Standard deviation
Metal industries-welding	86.0	47.06
Manufacturing	76.83	45.58
Machine tools	50.20	28.68
Mapping	68.43	39.85
Mapping and industrial design	48.57	19.13
Manufacturing technology engineering		
Machine tools		
Electrical technology engineering-electronics		

In above Table, the average value and standard deviation is indicated based on field of study and according to this table information, the average is respectively more than others in metal industries-welding, manufacturing-machine tools, manufacturing technology engineering-machine tools.

Table 12. One-Way Analysis of Variance Test for Comparison of Graduates' Employment and Reinforcement of Entrepreneurship Based on Their Field of Study

Resource	Sum of squares	Degree of freedom	Average of squares	F	Significant level
Between groups	0.55	4	4	0.27	0.01
	124421	199	199		
Inside groups	0.09	203	203	19	
	321231				
total	0.64				
	445652				

Considering the above Table's information, the **F** value is $F=19.27$, it shows that the confidence level is 99%, ($p<0.01$) and the field of study is an appropriate predictor for employment and reinforcement of entrepreneurship in graduates' opinion.

4. Discussions

According to this study, the students will obtain necessary skills besides they become familiar to future career, by exact planning from technical and vocational college and holding training courses. Because their interests, mental abilities and the labor market needs are considered by choosing experienced professors (human resources) so that the current content of courses and academic programs and the content of training programs have positive effect on promote the entrepreneurial spirit of students.

The technical trainings must go beyond treating people for special occupation which provides necessary skills and science, and develop their personality and character besides general trainings and reinforce the ability of comprehension, judgment, presenting themselves and cope with different environments. To achieve such purpose the cultural, educational content of technical and vocational college must be in a way that choosing one particular expertise does not block the learners' interest for choosing future profession different motivations are effective on being entrepreneurs including need to success, need to gain payment and wealth, need to be famous, and the most important is need to be useful and independent. And the graduates would certainly achieve these applicable goals by working in fields of metal industries-welding, manufacturing-machine tools, manufacturing technology

engineering-machine tools. Anyway, there is a positive direct relation between Shiraz Bahonar Technical and vocational college and reinforcement of entrepreneurship. The growth of entrepreneurship and entrepreneurial trainings effect and followed by this, development of entrepreneurial professional trainings in 90s show that entrepreneurial trainings not only cause quantitative growth of entrepreneurs, but also bring evolution in entrepreneurial generations and promotion in level of entrepreneurial skills especially in designing business strategy and dealing management due to quick changes in jurisdiction. But in early 1990s, innovation phenomenon based on science, entrepreneurship based on science and economy based on science have developed interact to each other. In fact, the main cause in appearance of science-based economy has been science-based entrepreneurship. Regardless of culture and religion, the entrepreneurial training experiences show that it is possible to treat entrepreneurs by training entrepreneurship and to entrepreneur by research. The university is an appropriate place for innovation based on science due to its basic features such as human capital in the form of student and faculty

Its significant to pint that despite the importance of this phenomenon and its increasing role in universal economy, it has been less considered recently. The country Economic conditions and new population structure makes us to need more and more leading field in economic scene, so the necessity to have models and strategies and appropriate research for training and optimal use of active force and entrepreneurs increase.

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