Relationship between Achievement Motivation and Ambiguity Tolerance with Entrepreneurship among Students in Hormozgan University

Eghbal Zarei, Hossien Zainalipour and Laleh Shaverdi Shahraki

Hormozgan University, Bandar Abbas, Iran
* Corresponding author's Email: eghbalzarei2010@yahoo.com

ABSTRACT: The aim of this study is to examine the relationship between achievement motivation and ambiguity tolerance with entrepreneurship and to compare it between students in Hormozgan University. The study population included all students; therefore 357 individuals (143 male students and 214 female students) were selected using random sampling with proper attribution from the community of Hormozgan University students. Measurement tools were achievement motivation questionnaire, ambiguity tolerance analysis questionnaire and entrepreneurship questionnaire. Research design was descriptive, of correlational type. Pearson correlation and multiple simultaneous and stepwise regressions were also used for the data analysis. Results - at $P<0.001$ level- showed that achievement motivation and ambiguity tolerance are predictors of entrepreneurial among male and female students and the adjusted coefficient of determination is equal to 0.22. In other words 22% of variances of the entrepreneurship criterion variable are explained by the predictor variables.
Keywords: Achievement Motivation, Ambiguity Tolerance, Entrepreneurship, Students

ORIGINAL ARTICLE

INTRODUCTION

The concept of entrepreneurship has different aspects or appearances and this term has been studied in different scientific fields from various perspectives. Economists treat entrepreneurs as the main actors of creating investment opportunities. Sociologists consider them as the critical instigators in modernizing societies and psychologists have studied entrepreneurs as entrepreneurial humans and they sought to identify their motivations and ideals in order to explore the characteristics of those who lead economic development. Political scientists treat entrepreneurs as disinterested children of political system who need help to emerge or manifest in the society (Ahmad Pour Dariani and Moghimi, 2010). One of the most essential psychological characteristics that contributed to the prediction of entrepreneurship is achievement motivation. All studies, including studies of Osborn Richard. L., McClelland, Geoffry. G et al, Donnald I. Sexton et al, John W. Atkinson et al, and Robinson sue confirm it (Samadaqaei, 2009). Based on Slavin R.E. (2006), achievement motivation is a desire or passion to succeed and participate in the activities, succeeding in which depends on individual effort and ability. Also, based on Vilder (1989), achievement motivation is individual's enthusiasm or effort to achieve a goal or mastery of things, people or ideas and to achieve a high standard or ideal.

The need to succeed or achievement motivation is a potential force in entrepreneurship that can lead to economic growth (Shafizadeh et al., 2008). In other words, need to succeed is one of the keys of economic

growth; because people attached to doing things better are active entrepreneurs that create thriving businesses. These institutions constitute the building blocks of a growing economy (OureiYazdani, 1994). In a study on entrepreneurship at the University of Finland, Nurmi et al. (2007) demonstrated that among all the models and methods used for training and promoting entrepreneurship, the only effective model is the level of self-motivation, creativity and motivation achievement that will lead to entrepreneurship.

Also the results of a study conducted by Gurol and Austin (2006), over 400 students from Turkey showed that scores earned by students in the areas of innovation and success-seeking, are higher than the mean score. In his study, Pilies (1998) came to this conclusion that there is a strong relationship between entrepreneurship and achievement motivation. Also, the results of a study conducted by Golshokouh et al, in Iran entitled "The relationship between thinking style, achievement motivation and academic achievement" also suggest that academic achievement is a predictor of entrepreneurship. Another feature that is taught as an important antecedent to entrepreneurship is Ambiguity Tolerance. One of the features of Ambiguity Tolerance is that the relevant individual seeks more information to remove or reduce ambiguity and thus he/she tries to adapt itself to that ambiguous situation. Entrepreneurship literature clearly indicates that entrepreneurs are more tolerant than other people against ambiguous or unclear issues or circumstances. In other words,

entrepreneurs are able to tolerate such things as ambiguous until they distinguish the right solution for it (Samadaqaei, 2008).

Ina study, Yonca Gand Nuray (2000) showed that students obtained higher scores in all entrepreneurial characteristics except ambiguity tolerance and self-confidence. Also, Shan et al. (2003) showed in their study that characteristics such as need for achievement, ambiguity tolerance, self-control and selection of goals are among the most important motivations for entrepreneurship. In a study, Khademi et al. (2004) showed that there is positive and significant relationship between ambiguity tolerance and the score of English Language in the University Entrance Examination and subjects' scores on the General English. In fact, in this study, researcher sought to examine the relationship of some cognitive and personality characteristics, such as motivation, progress (achievement) and ambiguity tolerance with the entrepreneurial spirit of students in Hormozgan University to see how much of the entrepreneurial spirit is predictable by these variables?

MATERIALS AND METHODS

This study is an applied research as far as the purpose is concerned and it is descriptive-correlational, and of prediction type as far as its method is concerned, where the relationship and determination of the contribution of achievement motivation and ambiguity tolerance with prediction of the entrepreneurial spirit of students are studied.

The population in this study was all male and female students in Hormozgan University who were studying in 2011-2012school year in various disciplines. The sample consisted of 357 students including 143 male 214 female students who were selected using random stratified sampling method, with appropriate attribution.

Achievement Motivation, ambiguity tolerance and entrepreneurship questionnaires were used in this study to collect data. Achievement Motivation Questionnaire is a pencil - paper tool developed by Hermans (1970). This questionnaire has 29 articles which are half-finished sentences and every article has four options. A score is awarded to each option depending on the severity of achievement motivation, from high to low or from low to high. Getting a high score on this test indicates a high achievement motivation. In this study, content validity method was used to test the validity and Cronbach's alpha was used to estimate the reliability of the method. The reliability coefficient of the entire questionnaire was 0.72.

Ambiguity tolerance test was developed by Bunder in 1962. This scale has 16 articles and is measured based on a seven spectral scale, from highly agree to highly disagree. Content validity method is used in this study to evaluate the validity of the test and Cronbach's alpha reliability coefficient was used to determine the reliability. The reliability coefficient was equal to 0.86.

The measurement tool of personality traits of entrepreneurs is a standard questionnaire which has been designed based on the psychological approach o entrepreneurship to measure personality traits of entrepreneurs. The questionnaire includes 95 questions that measure eight factors of important entrepreneurial characteristics. Content validity method was used in this study to determine the validity of this questionnaire and Cronbach's alpha method was used to estimate the reliability of the questionnaire and at the end reliability coefficient was obtained as equal to 0.92.

RESULTS

The findings related to the hypotheses of this study are discussed in this section. In this regard, in order to have a logical analysis process, their analysis is done based on the order of hypothesis. Hypothesis 1: There is a positive relationship between achievement motivation and entrepreneurship among student in Hormozgan University.

Pearson correlation coefficient was used to analyze the first hypothesis of the study. As can be seen in the table 1, correlation coefficient between achievement motivation variable and entrepreneurship variable is equal to 0.35. It is equal to 0.17 among female students and is equal to 0.58 among male students which is significant at the level of 0.001.

Hypothesis 2: There is a positive relationship between ambiguity tolerance and entrepreneurship among students in Hormozgan University.

As can be seen in the table 2, the results of the analysis of the second hypothesis of this research showed that the correlation coefficient between ambiguity tolerance and entrepreneurship among all students is equal to 0.36 which is significant at the level of 0.001. Also, this relationship is significant among female students with the value of 0.30 at the level of 0.01and it is significant among male students at 0.001 level which is equal to 0.47.

Hypothesis 3: Variables of achievement motivation and ambiguity tolerance have multiple relations with entrepreneurship.

Simultaneous multiple regression analysis is used to analyze the third hypothesis of the study. As can be seen in the table 3, multiple-correlation coefficient between achievement motivation and ambiguity tolerance variables and entrepreneurship

variable is equal to 0.4 and the adjusted coefficient of determination is equal to 0.22. In other words 22% of the variance of the entrepreneurship criterion variable is explained by the predictor variables.

As can be seen in the table 4, regression effect of achievement motivation and ambiguity tolerance on entrepreneurship variable was significant. This regression effect with the value of F=35.96, was significant at α = 0.001. In other words, the residual sum of squares was not enough to counteract the effect of regression and to lead to the lack of significant differences.

The resulting positive relationship shows the best linear combination between the dependent and independent variables.

As can be seen in the table 5, predictor variables of achievement motivation and ambiguity tolerance can significantly predict entrepreneurship criterion variable. Achievement motivation variable with a beta value of 0.45 and t=8.63 is the predictor of significance for entrepreneurship variable at α =0.001. In other words, for every one unit change in the standard deviation (SD) of the achievement motivation variable, 0.45 changes is caused in the standard deviation of

the entrepreneurship variable. Ambiguity tolerance variable with a beta value of 0.28 and t=5.35, is considered as the predictor of significance for the entrepreneurship criterion variable at α=0.001. In other words, for every one unit change in the standard deviation of the predictor variable of ambiguity tolerance, 0.28 changes is caused in the standard deviation of entrepreneurship variable. Stepwise regression was generally used to predict entrepreneurship variable.

The results of table 6 indicate the results of correlation coefficients between predictor variables with the criterion variable. As the table results show, in each step, with the addition of each variable, the correlation coefficient between the predictor variables and the criterion variable increases. At the first step, the correlation coefficient between achievement motivation and entrepreneurship variable was equal to 0.35, and at the second step, with the addition of ambiguity tolerance, the multiple correlation coefficient increased to 0.48. These results indicate that the regression model is statistically significant in both steps and each of the variables has remained in the model and did not leave the equation.

Table 1: Correlation coefficient of achievement motivation and entrepreneurship variables
Entrepreneurship

Entrepreneurship with	R	Degree of freedom	Significance Level
Achievement Motivation of all Students	0.35	356	0.001
Female Students Achievement Motivation	0.17	213	0.01
Male Students Achievement Motivation	0.58	142	0.001

Table 2: Correlation coefficients of ambiguity tolerance and entrepreneurship variables

Entrepreneurship with	R	Degree of freedom	Significance Level
Ambiguity Tolerance of all Students	0.36	356	0.001
Ambiguity Tolerance of Female Students	0.30	213	0.01
Ambiguity Tolerance of Male Students	0.47	142	0.001

Table 3: Summary of simultaneous multiple regression model in order to predict the entrepreneurship variable based on achievement motivation and ambiguity

Predictor Variables	Correlation Coefficient	Determination Coefficient	Adjusted Determination Coefficient
Achievement Motivation and Ambiguity Tolerance	0.48	0.23	0.22

Table 4: Summary of ANOVA Results for predicting entrepreneurship variable based on achievement motivation and ambiguity tolerance

Model indicator	Sum of squares	Degrees of freedom	Mean square	F value	Significance level
Regression effect	65013.66	3	21671.22	35.96	0.001
Reminders	21273.70	353	602.63		
Total	277744.37	356			

Table 5: Coefficients of the simultaneous regression equation to predict entrepreneurship variable based on achievement motivation and ambiguity tolerance variables

	Non-standardized coefficients		β Standard value	t value	Significance level
	B value	standard error			
Intercept	93.48	17.24		5.42	0.001
Achievement Motivation	2.13	0.16	0.45	8.63	0.001
Ambiguity Tolerance	0.29	0.06	0.28	5.35	0.001

Table 6: Results of stepwise multiple regression analysis for all subjects (participants)

criterion variable	Predictors variable	Correlation coefficient	Determination coefficient (RS)	F value	Regression coefficients	
					1	2
Entrepreneurship	Achievement motivation	0.35	0.12	43.06	=0.35B =7.11t p<0.001	
	Ambiguity tolerance	0.48	0.23	35.96	=0.34B =8.63t p<0.01	=0.28B =5.35t p<0.01

DISCUSSION

The aim of this study was to examine some important psychological antecedents of entrepreneurship, based on which some hypotheses were proposed. As was noted in the results section related to the first hypothesis, correlation between achievement motivation and entrepreneurship was significant for all students and separately for male and female students at p<0.001.

The results suggest that the more the students have achievement motivation, the more they are entrepreneurs; and achievement motivation among students in Hormozgan University could be a predictor of entrepreneurial spirit in students. Such a result can be seen as a seal of approval on the McClelland's theory that considers achievement motivation as one of the features of entrepreneurs. Results of this research question is consistent with the findings of Mayner, Braker Smith (1989), Solomon (1989), Carland (1991), Pilies (1998), Drasin et al. (1999), LeithThonen (2000), Galway et al. (2002), Shan et al. (2003), Aviram (2006), Gorol et al. (2006), Nurmi et al. (2007), Astric et al. (2010), Hezarjaribi (2004), Jafarzadeh (2005), Amirkhani et al. (2006), Boroomandnasab et al. (2009), Golshokouh et al (2009), Shekarkan et al (2002).

In explaining these findings, it can be stated that McClelland (1961) considers features for those with high achievement motivation which is consistent with the characteristics of an entrepreneur. He believes that highly motivated individuals prefer to work in those situations where they can become entrepreneurs.

People with high achievement motivation are trying to solve problems and achieve progress. Even after they failed in doing something, they do not miss it and continue their efforts until success. Students with high achievement motivation always want to be successful and wait for it. When they fail, they double their efforts and continue to work to succeed (Saif, 2009).

Also, the results obtained in the second hypothesis show that the correlation between ambiguity tolerance and entrepreneurship for all subjects (participants), male and female subjects was significant at p<0.001, and thus the second hypothesis is confirmed. The results of this study confirm the results of the studies conducted by other researchers, such as Chapel and Roberts (1986), Yonca Gand Nuray A (2000), AschinDoti et al (2006), Khademi et al (2004) and indicate that the more the students have the characteristics of ambiguity tolerance, they more they are entrepreneurs. It means that the more the students have a higher level of ambiguity tolerance and the less they avoid unorganized and indefinite circumstances, the more they can organize the resources for greater productivity. This relationship can be defined such that organizational affairs and events are often unstructured and unpredictable and those who only able to work in an organized and unambiguous environments cannot succeed in unstructured situations. For the success of an organization, it is essential that the employees want and are able to deal with uncertain situations (LampkinOrdogan, 1999).

Multiple correlation analysis also shows that the combination of predictor variables with entrepreneurship is significant at p<0.001, so that the combination of predictor variables, explains more than 22 percent of the variance of criterion variable. Stepwise regression results also showed that among all students, both predictor variables in the regression equation were remaining and predicting criterion variables of entrepreneurship. In general, results of this study indicate a relationship between

achievement motivation and ambiguity tolerance with entrepreneurship among students in Hormozgan University. It means that students in Hormozgan University have potentially entrepreneurial characteristics that can be actualized through specific measures and planning. The results of previous studies such as Mayner et al. (1989), Solomon (1989), LeithThonen (2000), Uunganorai (2000), Galway et al. (2002), Shan et al. (2003), Aviram (2006), Schendoti et al. (2006), Araste et al. (2012), Shekarkan et al. (2002), KhedmatiTavasol (2000), Azizi (2003), Badri et al. (2006), Boroomandnasab et al. (2003), Golshokouh et al. (2009) confirm the results of the present study.

As already noted one of the major approaches to the development of entrepreneurship in different societies is the personality characteristics or traits approach. It has been formed with this assumption that in order to develop and increase the number of entrepreneurs in the society, a number of entrepreneurial personality characteristics should be strengthened in individuals. In this approach, it is believed that in order to promote or develop entrepreneurship, either we look after those people in the society who have potentially these characteristics or to foster these characteristics in those without these features through education and counseling (Behrangi, 2009).

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