



The Effect of Organizational Entrepreneurship on Creativity and Perception of Students' Ability in Technical High Schools of Sistan and Baluchestan

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Abstract

The present study aimed to investigate the effect of organizational entrepreneurship on creativity and perception of students' ability in technical high schools of Sistan and Baluchestan. The research method was a descriptive-correlational study. The sample of the present study consisted of 368 students of technical high schools in Sistan and Baluchestan. The research data were collected using Questionnaires of Hill Organizational Entrepreneurship (1996), Torrance's Creativity (1979) and Spritzer and Mishra's (1998) Ability Perception. The confirmatory factor analysis (CFA) method and the structural equation model (SEM) were used based on the Lisrel software. The findings suggest that the impact of organizational entrepreneurship on creativity and ability perception is significant at the level of 95% confidence and path coefficient between organizational entrepreneurship and creativity is 0.89 and organizational entrepreneurship and ability perception is 0.86, which indicates the positive impact of organizational entrepreneurship on creativity and perception of ability. Furthermore, the effect of organizational actions, individual attitude, flexibility, reward status, entrepreneurial leadership and entrepreneurial culture at 95% confidence level and path coefficient between organizational actions, individual attitude, flexibility, reward status, entrepreneurial leadership and entrepreneurial culture and creativity are 0.71, 0.81, 0.65, 0.87, 0.79, 0.80, respectively, which indicate the positive and significant effect of these factors on creativity and the path coefficient between organizational actions, individual attitude, flexibility, reward status, Entrepreneurial leadership and entrepreneurial culture and ability perception are 0.69, 0.79, 0.70, 0.80, 0.75, and 0.85, respectively, showing a positive effect of these factors on ability perception. The results showed that organizational entrepreneurship through the dimensions and characteristics of organizational actions, individual attitude, flexibility, reward status, entrepreneurial leadership and entrepreneurial culture affect the creativity and perception of students' ability in Sistan and Baluchestan technical high schools.

Keywords: Organizational Entrepreneurship, Ability Perception, Creativity.

Introduction

The support of Technical Organization for creating employment opportunities based on technology, knowledge, creativity and

ability perception of high school students can greatly increase the success rate of scientific and research institutes related to these institutions. The development of human resources requires developing of

creativity and understanding the current situation and the extent of personal and group abilities, expanding opportunities and possibilities for human selection and increasing their capabilities and abilities, and of course promoting entrepreneurship and planning in this area can be helpful (Ahmad Pourdariani, 2016). Creativity is making new and useful ideas, and innovation is the implementation of creative ideas in an organization (Amabile, 1988). Creativity helps the organizational survival so that when employees are creative in their work, they will be able to come up with new and useful ideas about the organization's products, performance, services, or procedures (Oldham & Cummings, 1996). Research by (Amabile, 1996) also shows that a person's perception of the work environment is one of the key determinants of his creativity. According to their model, perception of the work environment affects the performed creative work in organizations; That is, the psychological concept that employees relate to events in their organization impacts their motivation to create new ideas. Previous sources have investigated several psychological perceptions of the work environment that can be influential in organizations' creative work. Similarly, Al-Quddah research (2018) showed the positive effect of entrepreneurship initiatives on creativity and innovation in organizations and companies. In this case, variables such as culture, support management, technology, strategies and resources play an important role in entrepreneurial initiatives. The results of research by (Hunt et al., 2004) showed that students who are more efficient and creative have more entrepreneurship. In addition, they indicated that implementing entrepreneurship programs among high school students can be an effective tool for promoting entrepreneurial skills among

young people. (Drucker, 2011) believes that creativity and innovation are essential to entrepreneurship, to the extent that entrepreneurship without creativity and innovation is fruitless. Examining 150 entrepreneurs, Solomon concluded that entrepreneurs' motivation to start a business is deciding to create new, innovative, and different things, and that economic profit has not been the primary motivator for entrepreneurial behavior. In this regard, (Amabile, 1988) in a study showed that there is an indirect and significant relationship between creativity and perception of ability with entrepreneurial development. (Oldham & Cummings, 1996) concluded that creativity mediates relatively the relationship between human resources flexibility and organizational innovation, and human resource flexibility has a significant impact on creativity at both the individual and organizational levels. In his research, was shown that different dimensions of organizational entrepreneurship have a positive and significant effect on perception of ability. Employees with high self-efficacy are more likely to be motivated to come up with new ideas and solutions. Furthermore, the emotional relationships that the transformational leader creates with his followers can be considered as another force for improving creativity because emotional belonging is likely lead to an increase in the levels of creativity (Hunt et al., 2004). According to the World Entrepreneurship Index, Iran's entrepreneurship rank in 2018 is 72 out of 137 countries in the world with an increase of 13 ranks. These statistics show a relative improvement in Iranian entrepreneurship. These statistics state that in a country like Iran, if more attention is paid to factors such as the economic, political, cultural and social environment, entrepreneurship can improve the



motivations of individual entrepreneurs at the community level. This importance is further demonstrated by the fact that, according to the World Entrepreneurship Index report, in 2018, Iran has experienced a significant increase in the sub-index of entrepreneurial trend (ATT) in comparison to the last year. This increase is because of a sudden change in the part of training entrepreneurial skills and then strengthening the creativity of entrepreneurs. According to the Gallup institute, the United States needs 10 million new businesses to create jobs before 2020, jobs that must be created naturally and sustainably by entrepreneurial activities.

Despite the necessity, role and importance of organizational entrepreneurship, particularly in technical high schools, no research has been conducted on the impact of organizational entrepreneurship on creativity and ability perception, and only some aspects of this impact have been mentioned in different theoretical models. This issue refers to the necessity of such research. In this study, after studying different models and theoretical foundations, the impact of organizational entrepreneurship on creativity and ability perception is examined. In fact, the research question is how organizational entrepreneurship can affect the creativity and ability perception of students in Sistan and Baluchestan technical high schools?

Research Method

The present research method is a field study in terms of data collection and is non-experimental in terms of control of variables, and since it tests a specific model of the relationship between variables, it is a causal or structural equation model. The statistical population of the study is the students of technical high schools of Sistan and Baluchestan which is consisted of 8842

students. In order to determine the sample size based on random sampling method and based on Cochran's formula, the required sample size was determined by 368 people and the questionnaires were answered appropriately. Data collection tool in this study was a questionnaire that in order to achieve the objectives of the study three questionnaires of 48 components of Margaret Hill organizational entrepreneurship (1996), 60 questions of Torrance's creativity (1979) questionnaire and 19 questions of Spritzer and Mishra's ability perception questionnaire (1998) were used. The questionnaires were rated on a five-point Likert scale. Collecting professors' opinions about the questionnaire confirmed their validity. Furthermore, Cronbach's alpha coefficient of the questionnaires was 0.79, 0.81 and 0.78, respectively, which showed the reliability of the questionnaires. In order to analyze the questionnaires, in the first step, confirmatory factor analysis (CFA) was used to evaluate the appropriateness of measurement models, and in the second step, structural equation model (SEM) was used to evaluate the hypothetical model. all the analyses were done by Lisrel software version 8.8.

Findings

According to the results, the largest student population is consisted of men with 265 people (72%). The highest average age was 17-year-old students with 167 individuals (45%). Moreover, the majority of students, with a frequency of 315 people (86%), were without job and income. Furthermore, the descriptive statistics of the present study, which were calculated from 368 distributed questionnaires, showed that the average of the components is almost balanced, which means that the respondents often agreed.

The standard deviation scores also indicate that the research components have a relatively high distribution. In negative skewness, the mode is larger than the median and the median is larger than the mean. According to these results, the values of skewness and kurtosis also indicate the relative asymmetry of the components. In addition, by observing the descriptive statistics of mode and median, it can be said that the most answers are in the range of I agree. In examining the research hypothesis based on the impact of organizational entrepreneurship and its dimensions on

creativity and ability perception of students of Sistan and Baluchestan Technical High Schools, the research data obtained from questionnaires were analyzed and the results are presented in the following two sections:

Confirmatory Factor Analysis

Before evaluating the hypothetical structure model in order to create a fit and acceptable measurement model and determine whether the markers measure the underlying theoretical structure well, confirmatory factor analysis was performed about all the hidden factors (Figures 1-3).

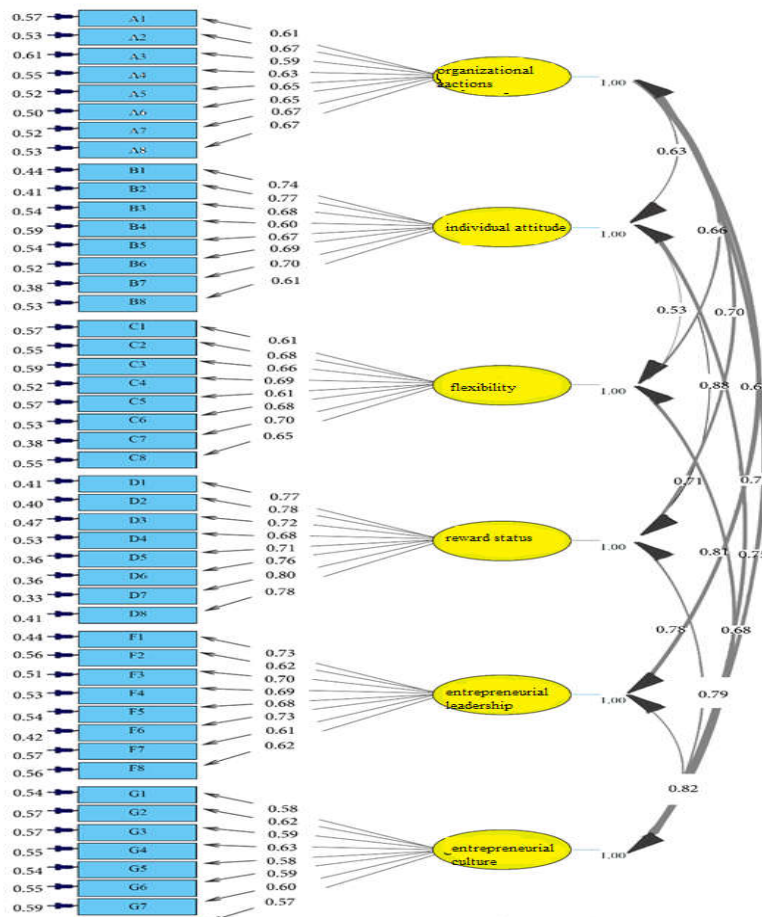


Figure 1. Confirmatory Factor Analysis of Organizational Entrepreneurship Variable

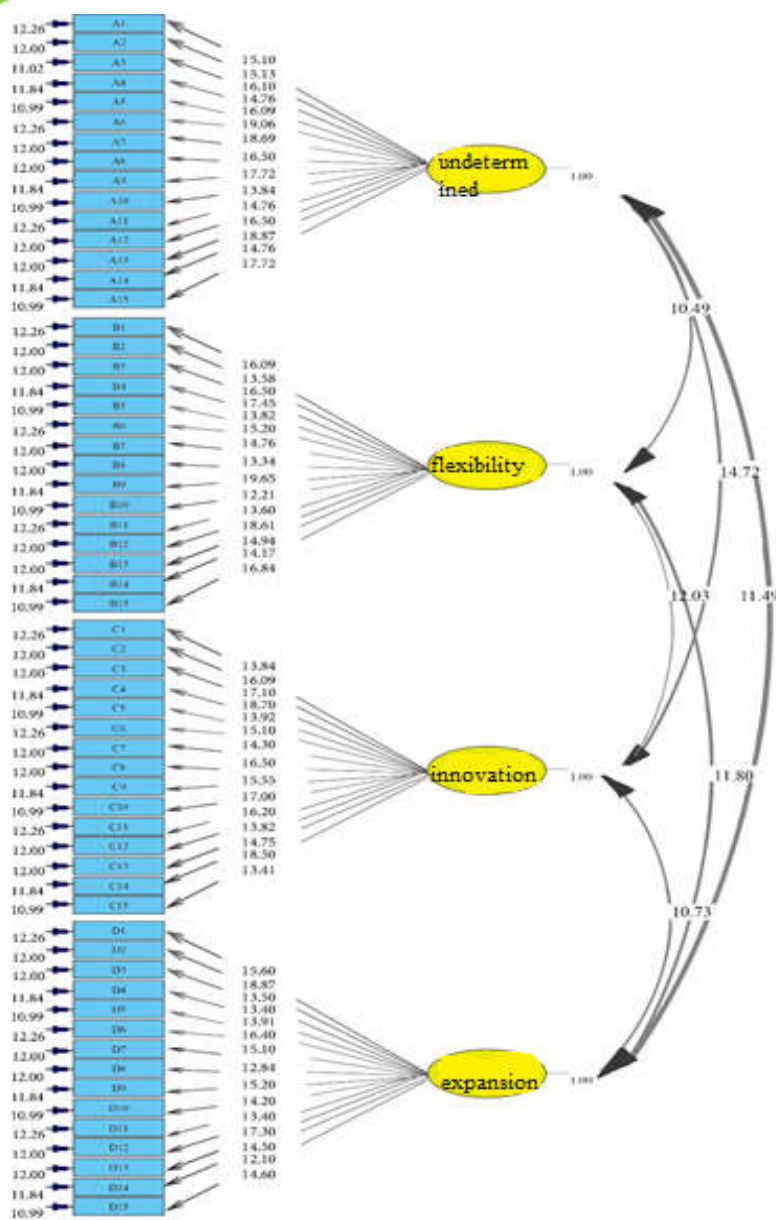


Figure 2. Confirmatory Factor Analysis of Creativity Variable

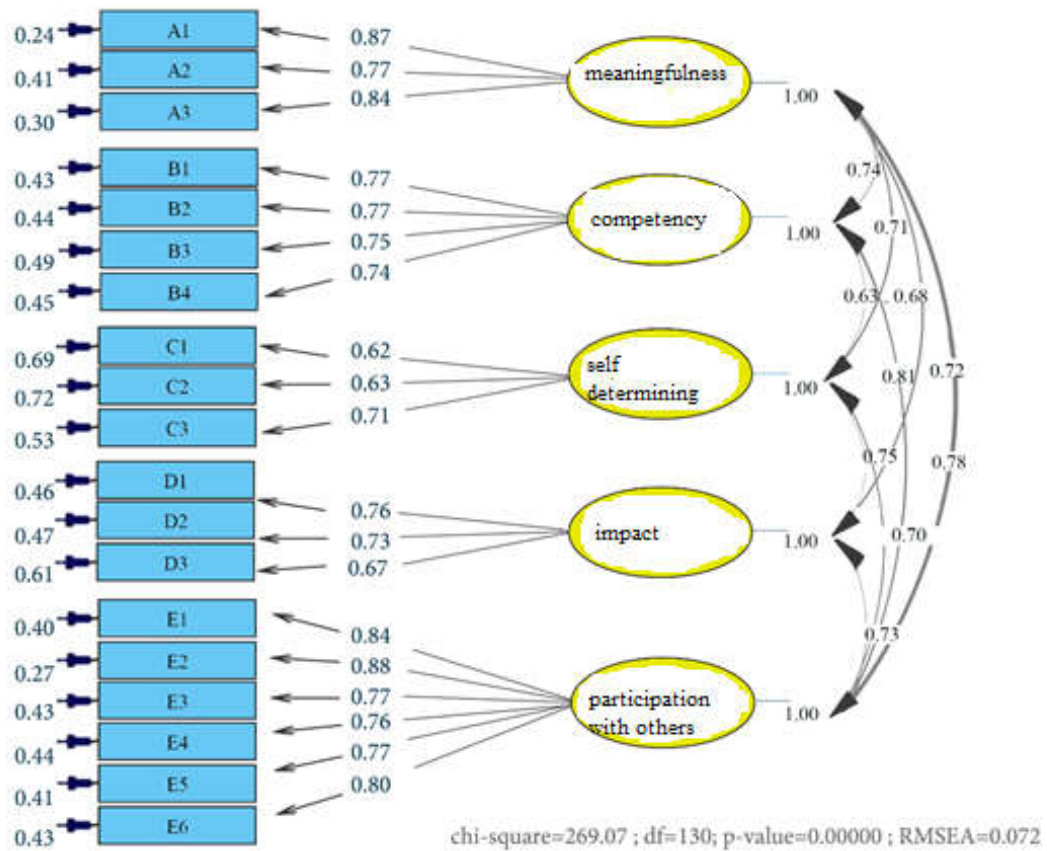


Figure 3. Confirmatory Factor Analysis of Ability Perception Variable

One of the best indicators of the fitness of structural equation models is the result of dividing the value of chi-square by the degree of freedom, which must be less than 3. According to the Lisrel output, the value of chi-square is 2260.57 and the degree of freedom for this organizational entrepreneurship questionnaire is 1028, so the value obtained by dividing the chi-square by the degree of freedom for the conceptual research model is 2.199, which is an acceptable value. Furthermore, the output of the model shows the fit index of the root mean square error of approximation value

equals to 0.074, which is an acceptable value. The above two indicators, as well as the other fit indicators, have an acceptable value. According to the Lisrel output, the value of chi-square is 3209.70 and the degree of freedom for this creativity questionnaire is 1646, so the value obtained by dividing chi-square by the degree of freedom for the conceptual research model is equal to 1.95, which is an acceptable value. In addition, the output of the model shows the value of the fit index of the root mean error of approximation equals to 0.70, which is an acceptable value. The above two



indicators, as well as the other fitness indicators, have an acceptable value. According to the Lisrel output, the value of chi-square is 269.07 and the degree of freedom for this questionnaire is 131. Therefore, the value obtained by dividing chi-square by the degree of freedom for the conceptual research model is 2.054, which is an acceptable value. Also, the output of the model shows that the fit index of the root mean square error of approximation equally, which is an acceptable value. The above two

indicators, as well as the other fitness indicators, have an acceptable value.

Structural Model of the Results

In this section, the conceptual model of the research is drawn in the form of a path diagram and it was measured using different methods of fitness. A complete model of structural equations actually represents a mixture of path diagrams and confirmatory factor analysis (Figures 4-5).

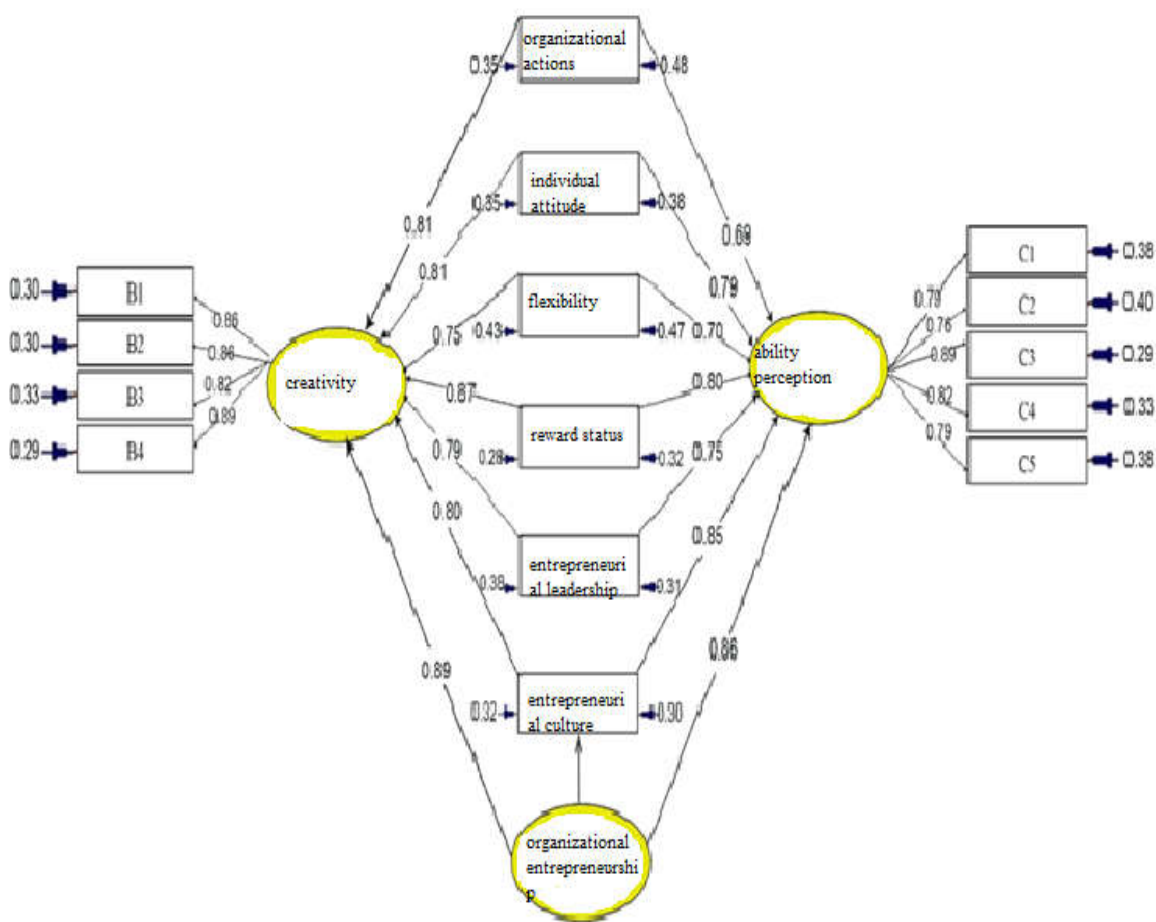


Figure 4. Standard Path Coefficients of the Research Structural Model

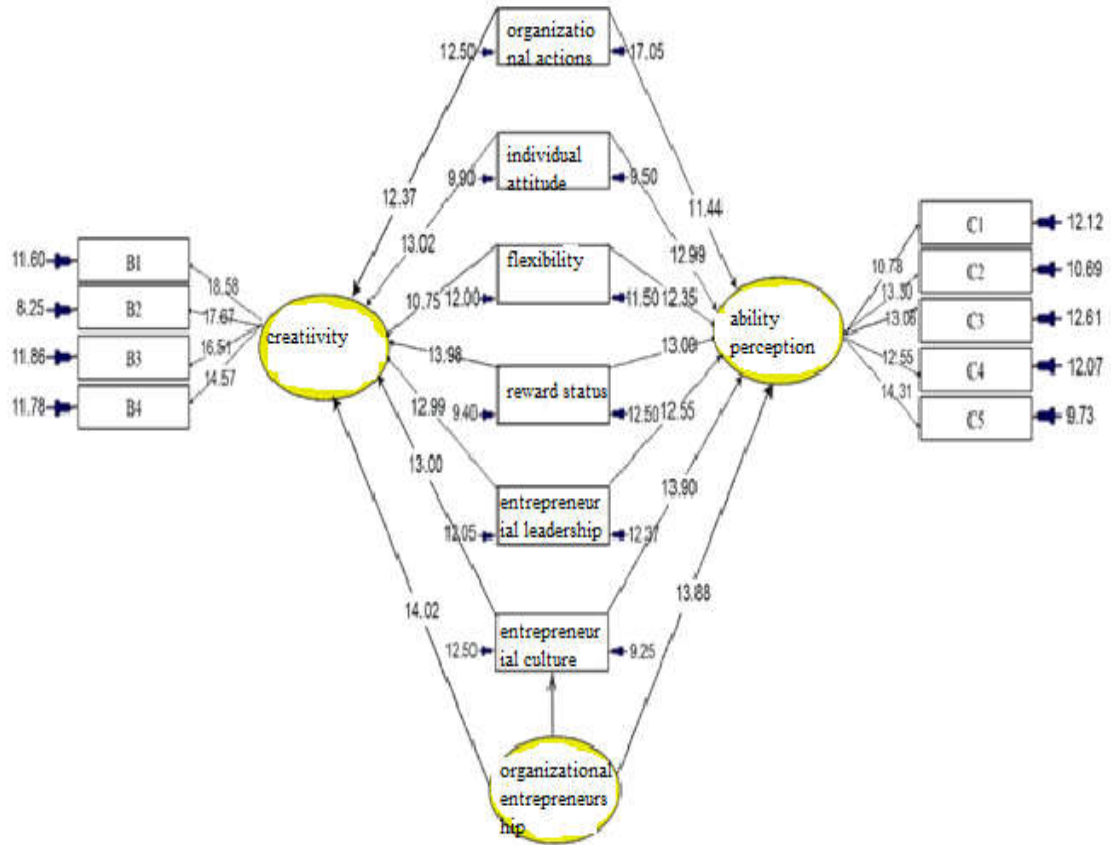


Figure 5. Significant Values of the Research Structural Model

For the fitness of the main research hypothesis structural model, a number of goodness of fit index has been used. To make a significant test of the path

coefficients between the variables, the output of Lisrel was used. The path coefficients and their significance results are given in (Table 1).



Table 1. The Results of Evaluating Structural Model

Independent variable	Dependent variable	Standard coefficient	Significance value	Test result
Organizational entrepreneurship	Creativity	0.89	14.02	No rejection
Organizational entrepreneurship	Ability perception	0.86	13.88	No rejection
Organizational actions	Creativity	0.71	12.37	No rejection
Organizational actions	Ability perception	0.69	11.44	No rejection
Individual attitude	Creativity	0.81	13.02	No rejection
Individual attitude	Ability perception	0.79	12.99	No rejection
Flexibility	Creativity	0.65	10.75	No rejection
Flexibility	Ability perception	0.70	12.35	No rejection
Reward status	Creativity	0.87	13.98	No rejection
Reward status	Ability perception	0.80	13.00	No rejection
Entrepreneurial leadership	Creativity	0.79	12.99	No rejection
Entrepreneurial leadership	Ability perception	0.75	12.55	No rejection
Entrepreneurial culture	Creativity	0.80	13.00	No rejection
Entrepreneurial culture	Ability perception	0.85	13.90	No rejection

Organizational entrepreneurship affects the creativity and perception of students' abilities in Sistan and Baluchestan technical high schools

According to Table (1), there is a statistical significance between organizational entrepreneurship and creativity which is (14.02) and is greater than the value (1.96), which shows that the effect of organizational entrepreneurship on creativity at the confidence level (95%) is significant. Also, the path coefficient between these two variables is (0.89) and shows the positive effect of organizational entrepreneurship variable on creativity. In other words, a change in entrepreneurship will increase the creativity by 0.89. This means that organizational entrepreneurship affects creativity, as well as the statistical significance between organizational entrepreneurship and perceptual competence is (13.88), which is also greater than (1.96). And it shows that organizational entrepreneurship is significant on the perceptual competence

at the level of confidence (95%). Also, the path coefficient between these two variables is (0.86) and shows the positive effect of organizational entrepreneurship on ability perception. In other words, a change in entrepreneurship will increase the perception by 0.86. This means that organizational entrepreneurship affects the perceptual competence, so the main research hypothesis is confirmed. According to Table (1), the statistical significance between organizational actions and creativity is (12.37) which is greater than (1.96) and shows that the effect of organizational actions on creativity at the level of confidence (95%) is significant. Also, the path coefficient between these two variables is (0.71) and shows the positive effect of organizational variables on creativity. In other words, a change in organizational actions will increase the creativity by 0.71. This means that organizational actions affect creativity, as well as the statistical significance between organizational actions and the perceptual competence is (11/44), which is also greater than (1.96). And it shows that the

effect of organizational actions on the perceptual competence at the level of confidence (95%) is significant. Also, the path coefficient between these two variables is (0.69) and shows the positive effect of the organizational actions on the perceptual competence. In other words, a change in organizational action will increase the perceptual competence by 0.69. This means that organizational actions affect the perceptual competence, so the first sub-hypothesis of the research is confirmed. According to Table (1), the statistical significance statistic between individual attitude and creativity is (13.02), which is greater than (1.96), which indicates that the relationship between individual attitude and creativity at the level of confidence (95%) is significant. Also, the path coefficient between these two variables is (0.81) and shows the positive effect of the individual attitude on creativity. In other words, a change in individual attitude will increase the creativity by 0.81. This means that individual attitudes affect creativity, as well as the statistical significance between individual attitudes and perceptual competence (13.99), which is also greater than (1.96). And it shows that the relationship between individual attitude and perceptual competence at the level of confidence (95%) is significant. Also, the path coefficient between these two variables is (0.79) and shows the positive effect of the individual attitude on the perceptual competence. In other words, a change in the individual attitude will increase the perceptual competence by 0.79. This means that an individual attitude affects the perceptual competence, so the second sub-hypothesis of the research is confirmed. According to Table (1), the statistical

significance between flexibility and creativity is (10.75), which is greater than the value (1.96), which indicates that the relationship between flexibility and creativity at the confidence level (95%) is significant. Also, the path coefficient between these two variables is (0.65) and shows the positive effect of flexibility on creativity. In other words, a change in flexibility will increase the creativity by 0.65. This means that flexibility affects creativity, as well as the statistical significance between flexibility and perceptual competence is (12.35), which is also greater than (1.96). And it shows that the relationship between flexibility and perceptual competence at the confidence level (95%) is significant. Also, the path coefficient between these two variables is (0.70) and shows the positive effect of the flexibility on the perceptual competence. In other words, a change in flexibility will increase the perceptual competence by 0.70. This means that flexibility affects the perceptual competence, so the third sub-hypothesis of the research is confirmed. According to Table (1), the statistical significance between the reward status and creativity is (13.98) which is greater than (1.96) which indicates that the relationship between reward status and creativity at the confidence level (95%) is significant. Also, the path coefficient between these two variables is (0.87) and shows the positive effect of the reward status on creativity. In other words, a change in reward status will increase the creativity by 0.87. This means that the status of the reward affects creativity, as well as the statistical significance between the reward status and the perceptual competence is (13.00), which is also greater than (1.96). And it shows that the



relationship between reward status and the perceptual competence is significant at the level of confidence (95%). Also, the path coefficient between these two variables is (0.80) and shows the positive effect of the reward status on the perceptual competence. In other words, a change in reward status will increase perceptual competence by 0.80. This means that the reward status affects the perceptual competence, so the fourth sub-hypothesis of the research is confirmed. According to Table 1, there is a statistical significance between entrepreneurial leadership and creativity which is (12.99) and is greater than (1.96), which indicates that the relationship between entrepreneurial leadership and creativity is significant at the confidence level (95%). Also, the path coefficient between these two variables is equal to (0.79) and shows the positive effect of entrepreneurial leadership on creativity. In other words, a change in entrepreneurship will increase the creativity by 0.79. This means that entrepreneurial leadership has an impact on creativity, as well as there is a statistical significance between entrepreneurial leadership and perceptual competence which is (12.55), and is greater than (1.96). And it shows that the relationship between entrepreneurial leadership and perceptual competence is significant at the confidence level (95%). Also, the path coefficient between these two variables is (0.75) and shows the positive effect of entrepreneurial leadership on the perceptual competence. In other words, a change in entrepreneurial leadership will increase the perceptual competence by 0.75. This means that entrepreneurial leadership influences the perceptual competence, so the fifth sub-hypothesis of the research is

confirmed. According to Table (1), there is the statistical significance between entrepreneurial culture and creativity which is (13.00) and is greater than (1.96) which shows that the relationship between entrepreneurial culture and creativity is significant at the level of confidence (95%). Also, the path coefficient between these two variables is equal to (0.80) and shows the positive effect of the entrepreneur culture on creativity. In other words, a change in entrepreneurship culture will increase the creativity by 0.80. This means that entrepreneurial culture affects creativity, as well as there is a statistical significance between entrepreneurial culture and perceptual competence which is (13.90), and is also greater than (1.96). And it shows that the relationship between entrepreneurial culture and perceptual competence is significant at the level of confidence (95%). Also, the path coefficient between these two variables is equal to (0.85) and shows the positive effect of the entrepreneur culture on the perceptual competence. In other words, a change in the entrepreneurial culture will increase the perceptual competence by 0.85. This means that entrepreneurial culture influences the perceptual competence, so the sixth sub-hypothesis of the research is confirmed.

Discussion and Conclusion

The results indicate the effect of organizational entrepreneurship on students' creativity and perceptual competence in Sistan and Baluchestan technical high schools through the dimensions and characteristics of organizational actions, individual

attitude, flexibility, reward status, entrepreneurial leadership and entrepreneurial culture. Increasing the organizational entrepreneurship requires solutions such as paying attention to research and development (R&D), forming a new deputy in vocational schools, training students, and forming self-governing work teams and workgroups to pursue new ideas. The results of the research hypotheses can be theoretically proven, because the appropriate context for developing creativity and strengthening the perceptual competence, are as follows: leadership style, teamwork, sufficient support of managers from creative people, reward system and appropriate encouragement of creative and risky employees. Based on the results of the research hypotheses, it can be said that organizational entrepreneurship in technical high schools in Sistan and Baluchestan can be stimulated by using and applying the dimensions of organizational entrepreneurship. Entrepreneurship, as the engine of development, plays a key role in the development of societies, and planners and policymakers strive to strengthen their economic and social infrastructure by taking advantage of students' intellectual balance and creativity in an era called the Entrepreneurial Revolution. Accordingly, the development of entrepreneurship at different levels of vocational schools is being seriously pursued by managers. What is certain is that organizational entrepreneurship, like other scientific fields, needs a suitable platform for growth and prosperity. Vocational schools and their managers can use the achievements of entrepreneurial students in form of creativity and perceptual

competence in the interests of the vocational school. Instead of restricting staff, vocational school managers should create the space for students' talents to flourish and provide creative and financial support for creative and entrepreneurial students to achieve the desired results, but unfortunately in vocational schools, management is sometimes given to people who are not very good at it, and most of their work is done according to administrative rules, which reduces the creativity of vocational school students. However, vocational schools can offer new values by adopting an organizational entrepreneurial approach. The results of the present study show that by using and disseminating creative and entrepreneurial behaviors and actions in vocational schools, it can be in a more favorable situation, which is a very long way to do this. In order to make technical high schools dynamic by fostering creativity and applying it, it is possible to strengthen the spirit of scientific courage, criticism, and research in each student in the technical high school. School managers should expand entrepreneurship in the organization, which means that, instead of paying attention to quantity and holding short-term training-skills courses, they should pay special attention to the quality and improvement of students' skills as well as their interests. The results show that organizational entrepreneurship can overshadow the perceptual competence because increasing students' perceptual competence is one of the most important tools for developing vocational high schools, and entrepreneurial students are able to create success in vocational schools. Also, the rapid growth of new



competitors and the creation of a sense of distrust in traditional management practices in vocational schools, require the students' perceptions. According to Hong et al. (2010), an organization's internal set of factors, such as rewards, in order to motivate employees, ultimately leads to creativity and understanding of their capabilities, so there is a direct relationship between these tools, as a dimension of organizational entrepreneurship, and creativity and the perceptual competence.

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