



# Relationship between Information Technology and Organizational Entrepreneurship and Organizational Agility in Esfahan Province General Directorate of Youth and Sport

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## Authors' contributions

*This article was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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## ABSTRACT

The purpose of present study is to investigate the relationship between information technology and organizational entrepreneurship, and organizational agility in Esfahan province general directorate of youth and sport. The sample consisted of Esfahan province general directorate of youth and sport staff equal to 188 from which 129 were selected categorized randomly as the study sample based on Curgesy and Morgan table. For data collection for information technology variable, Fathi questionnaire (2010), for organizational entrepreneurship variable, Rezai questionnaire (2014) and for organizational agility, Kermani questionnaire (2008) was used. Results showed that the mean of information technology, organizational entrepreneurship, organizational agility variables and their elements were significantly higher than average. No meaningful difference was observed between average opinions of respondents about information technology, organizational entrepreneurship variables based on sex, field of study, years of experience and education variables, with the exception that this difference was meaningful for information technology variable based on years of

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experience. Also, results showed that there is a positive and significant correlation between information technology and organizational entrepreneurship variables total scores ( $r=0.27$ ), information technology and organizational agility total scores ( $r=0.44$ ) entrepreneurship and organizational agility total scores ( $r=0.46$ ) and information technology and organizational agility variables total scores ( $r=0.41$ ) considering organizational entrepreneurship control variable in Esfahan province general directorate of youth and sport ( $P<0.05$ ).

*Keywords: Information technology; organizational entrepreneurship; organizational agility; Esfahan province general directorate of youth and sport.*

## 1. INTRODUCTION

Agility concept was introduced for the first time by Institute Yakvka researchers in 1991 and since then has attracted industry associations' attention too. Since 1990s, many articles related to this object have been published which have tried to provide an accurate definition [1]. According to Sharifi & Zhang [2], organizational agility is the ability to face with unwanted challenges to overcome unexpected problems in business environment and take advantages of changes as opportunities. Brian Muscle defines agility according to Alborzi [2] as potential for prosperity in an environment with constantly unforeseen changes and believes that organizations should not fear from environmental changes, instead they should see changes as an opportunity for competitive advantage. Karami [3] introduced organizational agility as organization's ability to survive and improve in an environment with constantly unforeseen changes.

Making organizational agility has been followed by an extensive transformation in facilitation of administrative affairs, increased efficiency of human resources and management, increased products and services variety and improved quality and customer satisfaction in organizations. So, managers must be aware that to what extent organizational agility could be effective and useful. In other words, adaptation and application of agility in the organization is effective on quality and improvement of services and communication which are indices and primary requirements for success in today's organizations. Identifying the achievement to this goal and relationship between internal organizational factors and organizational agility is an important concern for organization's decision makers [4]. Thus, many researchers are studying on important and effective factors on organizational agility. Aghaie & Aghaie [5], Abdehghah & Safari [6] and also Rahmani [7] in results of your researches say that information

technology is one of the effective factors on this important organizational variable (organizational agility).

Currently, information technology is concerned as the fundamental basis of civilization in the third millennium [8]. Nowadays, the debate about adaptation and application of information technology is going on in every organization. There is discussion about benefits or necessity of using internet and intranet everywhere, because using information technology has been followed by an extensive transformation in facilitation of administrative affairs, increased efficiency of human resources and management, increased products and services variety and improved quality and customer satisfaction in organizations. Thus, planners are continuously deciding for investment in adaptation and application of information technology in their organizations.

In few last years, information technologies have been accepted widely that nowadays they seem the most necessary in every aspect of public and private life. Products and systems in the information technology sector are changing rapidly. The speed and power of computers double every year. Costs are reduced and capabilities that were not considered last year are being used generally. In this context, a definite claim about accurate details of trends in future decade is difficult. However, discovering the topics of effects that information technology would have, will prepare us to face with challenges and opportunities that information technology will cause. These macro trends include:

- Information technology will be the dominant force in culture.
- Information technology causes continuous changes in our life style and jobs.
- Change steps will have more speed [9].

It seems that using information technology in Youth and Sports Offices, will increase their abilities for more efficient activities for achieving macro and micro goals and thus can improve their competence (as one of the agility's elements). Information technology is able to improve providing suitable services in Youth and Sports offices by better informing and increase their flexibility (as one of the agility's elements) versus variable and changing needs of society about sports. Moreover, information technology can better support managers with more information and speed and thus help them in managerial challenges.

Other element that seems to be effective in organizational agility is organizational entrepreneurship. Currently, entrepreneurship in many industrial and unindustrialized countries is considered as a solution for economic development. In multi-aspect interaction, attention to entrepreneurship in employment and changing through innovation and process improvement is considered necessary as a key factor in maintaining and developing success indices in business, so we can consider entrepreneurship one of the main development strategies of different countries in new ages [10]. One of the main entrepreneurship indices is organizational entrepreneurship, which undoubtedly contribute significantly to the organization's success and excellence [11] and causes organizational agility with designing new methods and creating comparative advantage [12].

Organizational entrepreneurship is one of the ways that organizations and governmental institutes respond to environmental necessities. This concept is referred to a process which is created in an organization to achieve to goals like profitability [13], strategic renewal and innovation spanning [14], earnings [15], international success [16] and providing the right environment for the emergence of entrepreneurial capabilities [17].

Considering issues mentioned above, this study is trying to answer this question that is there a significant relationship between using information technology and organizational entrepreneurship, and organizational agility in Sport Organizations? To get to the answer we considered Esfahan Province general directorate of Youth and Sport.

The Fig. 1 shows the conceptual model in this paper.

## 2. METHODOLOGY

The sample consisted of Esfahan province general directorate of youth and sport staff equal to 188 from which 129 were selected categorized randomly as the study sample based on Curgesy and Morgan table. For data collection for information technology variable, Fathi questionnaire (2010), for organizational entrepreneurship variable, Rezai questionnaire (2014) and for organizational agility, Kermani questionnaire (2008) was used. The descriptive information of sample in questionnaire was including sex, and education level.

To assess the validity of questionnaire face and content validity was used; and internal reliability equal to 0.73 for information technology questionnaire, 0.71 for organizational entrepreneurship questionnaire and 0.82 for organizational agility questionnaire showed favorable reliability of questionnaires.

The questionnaire was sent to persons (statistics sample) by their Email address or Fax from May to November 2015.

Also, for data analysis by SPSS software we used Cronbach alpha (to evaluate reliability of questionnaire), Kolmogorov and Smirnov (to evaluate normalization of used data), and Pearson correlation (to evaluate the correlation among variables) tests were used.



Fig. 1. Conceptual model

**3. RESULTS**

Table 1 show the descriptive information of statistics sample according to sex variable.

**Table 1. Descriptive information of statistics sample according to sex variable**

Sex	Frequency	Percent
Male	85	69.1
Female	38	30.9
Total	123	100
<b>Sex</b>	<b>Average</b>	<b>Sd</b>
	1.31	0.46

The results of Table 1 show that 69.1% of sample people were male and 30.9% were female. Table 2 show the descriptive information of statistics sample according to education level variable.

**Table 2. Descriptive information of statistics sample according to education level**

Education level	Frequency	Percent
Diploma	11	8.9
Bachelor	93	75.6
Master Degree	12	9.8
Ph.D	7	5.7
Total	123	100
<b>Education level</b>	<b>Average</b>	<b>Sd</b>
	2.8	0.49

The results of Table 2 show that 8.9% of sample people were diploma, 75.6% were bachelor, 9.8% were master degree, and 5.7% were Ph.D.

Assuming normal distribution, data of triple variables were analyzed by Kolmogorov Smirnov test and are shown in Table 3.

Results of Pearson's correlation coefficient between information technology and organizational entrepreneurship variables total score are given in Table 4.

Based on results obtained from Table 4, the observed  $r$  ( $r=0.27$ ) shows a positive and significant correlation between information

technology and organizational entrepreneurship total scores.

Results of Pearson's correlation coefficient between information technology and organizational agility variables total score are given in Table 5.

Based on results obtained from Table 5, the observed  $r$  ( $r=0.44$ ) shows a positive and significant correlation between information technology and organizational agility total scores.

Results of Pearson's correlation coefficient between organizational entrepreneurship and organizational agility variables total score are given in Table 6.

Based on results obtained from Table 6, the observed  $r$  ( $r=0.46$ ) shows a positive and significant correlation between organizational entrepreneurship and organizational agility total scores.

Results of Pearson's correlation coefficient between information technology and organizational agility variables total score considering organizational entrepreneurship control are given in Table 7.

Based on results obtained from Table 7, the observed  $r$  ( $r=0.41$ ) shows a positive and significant correlation between information technology and organizational agility considering organizational entrepreneurship control total scores.

Table 8 shows the results of regression test for predicting Organizational agility according to criteria of Information technology.

According to Table 8, none of criteria of Information technology is significant predictor for Organizational agility.

Table 9 shows the results of regression test for predicting Organizational agility according to criteria of Organizational entrepreneurship.

**Table 3. Kolmogorov Smirnov test results about data distribution**

Variable	k-s-z	Significance level
Information technology	1.327	0.059
Organizational entrepreneurship	0.603	0.860
Organizational agility	0.922	0.362

**Table 4. Results of correlation between information technology and organizational entrepreneurship variables**

Prediction variable	Index variable	Frequency	R	Significance level
Information technology	Organizational entrepreneurship	123	0.272	0.002

**Table 5. Results of correlation between information technology and organizational agility variables**

Prediction variable	Index variable	Frequency	R	Significance level
Information technology	Organizational agility	123	0.44	0.001

**Table 6. Results of correlation between organizational entrepreneurship and organizational agility variables**

Prediction variable	Index variable	Frequency	R	Significance level
Organizational entrepreneurship	Organizational agility	123	0.46	0.001

**Table 7. Results of correlation between information technology and organizational agility variables considering organizational entrepreneurship control**

Prediction variable	Index variable	Control variable	Frequency	R	Significance level
Information technology	Organizational agility	Organizational entrepreneurship	123	0.41	0.001

**Table 8. Results of regression test for predicting organizational agility according to criteria of information technology**

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Standard error	$\beta$		
Constant	3.728	0.318	-	11.72	0.001
Internet space	0.06	0.07	0.09	0.99	0.321
Using of hardware and software	0.04	0.06	0.06	0.60	0.548
Functional using	0.06	0.04	0.13	1.46	0.148
Computer capability	0.08	0.05	0.13	1.48	0.142

**Table 9. Results of regression test for predicting organizational agility according to criteria of organizational entrepreneurship**

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Standard error	$\beta$		
Constant	3.73	0.25	-	14.80	0.001
Risk acceptance	0.01	0.06	0.07	0.99	0.76
Renovation	0.31	0.06	0.38	0.34	0.004
Innovation	-0.03	0.03	0.08	1.46	0.76
Pioneering	-0.05	0.02	0.07	1.48	0.64

According to Table 8, only renovation criterion among criteria of Organizational entrepreneurship, is a significant predictor for Organizational agility.

#### 4. DISCUSSION AND CONCLUSION

Analyzing results showed that there is a meaningful relationship between information

technology and organizational entrepreneurship variables total scores in Esfahan province general directorate of Youth and Sport. This is consistent with findings of Simsek et al. [18]. Simsek et al. [18] in their study showed that efficacy of information technologies and systems in entrepreneur organizations depend on three factors:

Strategic application of information systems, the extent to which organizations use information technologies and systems in strategic decision making.

1. Observation and appropriate estimation of market, quality of information of the market that information technologies and systems are processing based on them.
2. Enthusiasm of information technologies and systems users, the extent to which organization's users consider information systems and information related to market important.

Results showed that there is a significant relationship between information technology and organizational agility in Esfahan Province general directorate of Youth and Sport. Today's organizations are facing with rapid and unpredictable changes and should keep pace with these changes in order to survive and maintain their positions. Organizational agility is a new concept that includes the most desirable organizational mode considering current changes. Agile organizations need advanced and flexible information and communication systems which guarantee safe and smooth flow of information and have the flexibility for adapting to changing environment. Like previous researches, results of this study showed that information technology has a positive effect on organizational agility. Agility, generally, is the ability of an organization to understand environmental changes and then rapid and efficient response to them. These environmental changes can be technological changes or changing needs for customers. The results of current study show a significant relationship between information technology and organizational agility in Esfahan Province general directorate of Youth and Sport. This means that increasing information technology application will increase agility variable significantly which is consistent with studies of Ramezani et al. [19], Abdegah and Safari [6], Hafo [20] and Ravichandran [21].

Moreover, results showed that there is a significant relationship between organizational

entrepreneurship and organizational agility in Esfahan Province general directorate of Youth and Sport, although no study for comparison was found. However, effects of this important organizational variable on subjects like profitability [13], strategic renewal and innovation spanning [14], earnings [15], international success [16] and providing the right environment for the emergence of entrepreneurial capabilities [22] has been proved.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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