

## Investigating the relationship between implementation of management information systems with organizational entrepreneurship (Case study: Medical Sciences University of Yasuj)

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**Abstract:** The main purpose of this study was investigating the relationship between implementation of management information systems with organizational entrepreneurship in University Yasuj of Medical Sciences (MSUY). This study was an applied and cross-sectional research. Population was finance staff of MSUY. Questionnaire was used to collect data. Cronbach's alpha method was used to estimate reliability of questionnaire. Validity was confirmed by content validity. In order to examine association of variables Pearson correlation coefficient and Kendall methods were used. Results showed that there is a positive and significant relationship between implementation of management information systems with organizational entrepreneurship.

**Key words:** Management information systems; Organizational entrepreneurship; Organizational development; Standardization

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### 1. Introduction

Management information systems (MIS) are the most effective factors to improve decision making process in the organization (Areiqat, 2010)

Nowadays, the need for information and statistics in management decision making process is felt more than ever.

The correct and comprehensive information can reduce the risks of incorrect decision making. Thus, organizations should collect, classify process and analyze all types of needed information for management. Management information systems have been developed in this aspect (Little, 2010).

Nowadays, information technology is used in entrepreneurship in many fields. World has been witness of information and communication revolution. As a result of these developments, the current century is century of ICT (Albertsson, 2003).

In the age of information and communication public awareness has been increased. All of activities in the world are done in communication networks. Thus, world is as linked village that people can travel to anywhere, be informed of news or send a message to anywhere (Oreilly & Pfeffer, 2000).

Information technology has influenced all social activities such as entrepreneurship and has changed them fundamentally (McCauley & Wakefield, 2006).

On the other hand, the development of ICT is a result of entrepreneurship. Entrepreneurship leads to identify needs, to create ideas and technologies (Ingham, 2006)

However, technological developments have changed anything in the world such as employment. Developed countries are recruiting technical labor from other countries while one the most important problems in Iran is unemployment.

### 2. Management information systems

Management information system is an integrated system consists of user and machine to provide information and support operation, management, and decision making in organizations. This system uses software and hardware, guidelines and procedures, analyzing models, planning, controlling and decision making, and a database (Laff, 2006)

Management information system collects environmental data and registers data of organizational exchanges and operations, and then filters, organizes, chooses, and provides them for managers.

It provides a tool so that managers can create needed information (Loftus, 2007)

The major components of management information system are as follows

- An integrated system for a large number of users.
- A system to link some informational software by a database.
- An user interface for urgent and temporary searches
- Providing information for all levels of management
- Supporting operations and decision making.

Information system is a set of hardware, software, data, people and dependent components to

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provide appropriate information to the right people at the right time (Davis and Olson, 1985: 27).

### 3. Benefits of management systems

Similar to other modern scientific phenomenon, management systems have been changed regularly. In the recent years, systems have been changed dramatically (McLeod, 1994). Also, governing laws and regulations on these mechanisms have been changed. However, in all of these developments, a major issue has remained stable. It is this reality that the purpose of these changes is achieving to most adaptable systems with expressed needs (Davidsson, 2004).

The result of this attitude is the emergence of a new generation of industrial and services systems. During these changes and developments, another problem was started. The new problem was the lack of coordination between existing systems. Thus it was necessary to find a new alternative. (Davis and Yen, 2006)

System designers suggested convenient and practical solutions and solved problem by systems. This solution was management systems. These systems not only covered governing principles and rules over previous systems, but also they caused coordination between the different regions. (Danko, 2006)

Some of the advantages of these systems include:

- Defining purpose clearly and according to organization's policy.
- Preventing taking wrong paths in the moving target.
- Increasing of coordination
- Reduce costs of rework
- Creating and developing a dynamic data flow in the system
- Providing a review of system to prevent defects and weaknesses
- Providing feedback details
- Providing the basis for predictions of process
- Reducing the volume of documentation and system records

### 4. Entrepreneurship

Entrepreneurship is the process of establishing a business based on a new idea. Today, creative people as entrepreneurs have been the source of great developments in the field of production and services. "Entrepreneurship" word had root in a French word that means responsibility. It has been defined differently by Scientists and experts over the past 300 years. Entrepreneurship tends to risk new business in the organizational context. This word has often has the concept of employment in minds, and evokes direct and substantial relationship to work (physical type). Unfortunately, some people in the country introduce entrepreneurship as a career and put entrepreneurs alongside engineers, doctors, pilots, lawyers, welders, etc. Others see it as a job

creation. Some people know entrepreneur as a person that can establish and manage a factory or a company and can accept its risks (Heinonen & Toivonen, 2006).

Others know only owners of small and innovative businesses as entrepreneurs. Some people know employment as the basis of work in industrial age, and entrepreneurship in postindustrial age (Vilaseca et al, 2007)

Entrepreneurship in its real and scientific meaning has different definitions. In scientists and expert definitions there is a clear difference between entrepreneur, investor and manager and so on. He is not an inventor or a scholar or an artist. But he can use knowledge and art of others and this is the important ability of entrepreneurs. He can identify solutions and convert them to commercially successful products (Kuratko et al, 1990)

Entrepreneurship in the current meaning was used by Joseph Schumpeter (who from 1925 to 1932 was professor of economics at the University of Bonn from 1932 to 1950, he taught at Harvard University) for the first time. This Austrian-born economist lived in America and is the father of entrepreneurship. He believes that economic development in system is possible if some people in the community start to innovate with risk-taking, and replace old and inefficient solutions by new working methods and solutions. His thoughts have been found particular importance and value with the starting of information revolution and postindustrial age. Entrepreneurs as agents of change and the process of entrepreneurship as the process of change in the economic system were considered. A considerable amount of research and related studies carried out during the 70s and 80s and 1990s (Dadash zadeh, 2011). Entrepreneurs were considered as the basis of management in organizations, and as an impartible part of organization. Its duty is providing situation so that management can do its tasks and achieve its goals (Sadoughi et al, 2009).

Johnson believed that entrepreneurship is a complex multifaceted concept. Most experts agree that entrepreneurship and entrepreneurs play an important role in economic development. Entrepreneurship and its positive functions and consequences can be considered as a fundamental solution to solve many internal problems and crises. On the other hand the phenomenon of entrepreneurship is a process that leads to improve economy of Iran in the world (Alamati & Haji zadeh, 2012)

Understanding the importance and necessity of developing a cultural entrepreneurship by cultural entrepreneurs, and emphasis on survival, growth and competitiveness of cultural and artistic institutions and organizations with similar cultural activities lead cultural entrepreneurs to entrepreneurial activities within these institutions and organizations.

Due to the special role of entrepreneurs in the process of community development and economic growth, governments in developed countries are

trying to encourage entrepreneurs to entrepreneurship education and entrepreneurial activities. Development of entrepreneurship in the country prepares the ground for sustainable development and solves current problems such as poverty, Social and cultural turmoil, and unemployment of graduates. Achieving growth and social development as a national perspective is the desire of every nation, but needs to develop and implement effective strategies. Entrepreneurship is one of the most operational strategies.

**5. Literature review**

Alamati et al (2012), in an investigation entitled “the relationship between management information system with entrepreneurship, case study in Govah CO.” stated that improving the performance of each organization is one of the major challenges in public, private and governmental sectors. One of the most important approaches for organizations to reach their goals and achieve success is managing systems and their information technologies. In this investigation has been discussed about information systems and their attitudes, goals and advantages, management, and their relations with customers to promote entrepreneurship. Statistical analysis of this investigation has showed that the hypothesis is correct and there is a significant relationship between variables (Alamati & Haji zadeh, 2012)

Dadash Zadeh (2011) in his thesis has investigated the relationship between establishing information systems with organizational performance. He stated that one of the biggest concerns for managers is to stay in competition. Today, managers need correct, accurate and timely information to make decision in the shortest time and do it. Thus, information systems are considered as a most important organizational artery. Due to this, there are many organizations to provide informational solutions for organizations. Results of this study have showed that there is a strong and significant relationship between establishing information systems with organizational performance in two aspects of customers and internal process. But, this relationship was not with financial, growth and learning aspects (Dadash zadeh, 2011)

Vilaska, J (2007) in an investigation entitled “using of information technology as a factor for success and innovation” found that there is a positive relationship between using of information technology with improving of innovational performance in organization. Also, he found that organizations with proper information technologies have better internal and external relationships. Also, he found that establishing of information and communication technology infrastructure and its content management plays a major role in the development of entrepreneurship and promoting the spirit of motivation.

Toynen (2006) in an investigation to find methods of measuring entrepreneurship in Finland,

considered open communication and quality of communication within the organization as one of the main factors to develop organizational entrepreneurship.

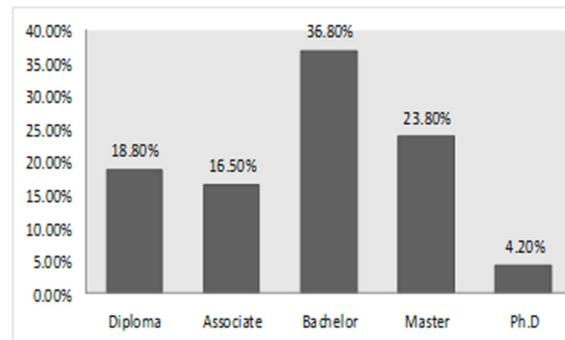
Welinz, Smitt and Paiz (2010), three organizational researchers in DDI Company have emphasized on critical role of technology to empower organizations and to provide features such as communication, rapid response and timely use of various skills which cause stability of talent management system in organization. They believed that talent strategy is not parallel with business strategy, but identifying organization’s strategic priorities and cultural priorities determine the main direction of talent strategy.

**6. Methodology**

This study was an applied and cross-sectional research. Population was finance staff of MSUY. Questionnaire was used to collect data. Cronbach’s alpha method was used to estimate reliability of questionnaire. Validity was confirmed by content validity. In order to examine association of variables Pearson correlation coefficient and Kendall methods were used.

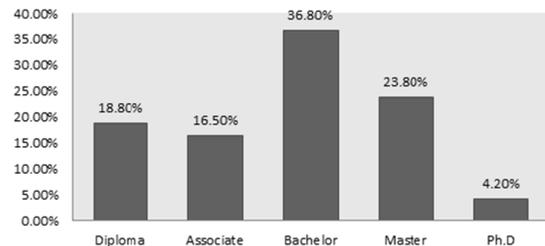
**7. Discussion and results**

Fig. 1 shows frequency distribution according to age. It can be seen that most of respondents were in 31-40 age group.



**Fig. 1:** Frequency distribution according to age

Fig.2 shows frequency distribution according to education. It can be seen that most of respondents had bachelor degree and master degree.



**Fig. 2:** Frequency distribution according to education

**8. The main hypothesis**

There is a significant relationship between management information system and organizational entrepreneurship in Yasuj University of Medical Sciences.

H<sub>0</sub>: There is no significant relationship between management information system and organizational entrepreneurship

H<sub>1</sub>: There is a significant relationship between management information system and organizational entrepreneurship

**Table 1:** Correlation between management information system and organizational entrepreneurship

management information system	Variable				
	Kendal		Freq.	Pearson	
	Coefficient	Sig.	261	Coefficient	Sig.
0.124	0.005	0.156		0.012	

According to Table 1, there is a significant and positive relationship between management information system and organizational entrepreneurship. But this association is weak.

H<sub>0</sub>: There is no significant relationship between standardization and organizational entrepreneurs in Yasuj University of Medical Sciences.

H<sub>1</sub>: There is a significant relationship between standardization and organizational entrepreneurs in Yasuj University of Medical Sciences.

**8.1. The first sub-hypothesis**

There is a significant relationship between standardization and organizational entrepreneurs in Yasuj University of Medical Sciences.

**Table 2:** Correlation between standardization and organizational entrepreneurship

organizational entrepreneurship	standardization				
	Kendal		Freq.	Pearson	
	Coefficient	Sig.	261	Coefficient	Sig.
0.195	0.000	0.234		0.000	

According to Table 2, there is a significant and positive relationship between standardization and organizational entrepreneurship. But this association is weak.

H<sub>0</sub>: There is no significant relationship between organization strategy and organizational entrepreneurs in Yasuj University of Medical Sciences.

H<sub>1</sub>: There is a significant relationship between organization strategy and organizational entrepreneurs in Yasuj University of Medical Sciences.

**8.2. The second sub-hypothesis**

There is a significant relationship between organization strategy and organizational entrepreneurs in Yasuj University of Medical Sciences.

**Table 3:** Correlation between organization strategy and organizational entrepreneurship

organizational entrepreneurship	standardization				
	Kendal		Freq.	Pearson	
	Coefficient	Sig.	261	Coefficient	Sig.
0.195	0.000	0.234		0.008	

According to Table 3, there is a significant and positive relationship between Organization strategy and organizational entrepreneurship. But this association is weak.

There is a significant relationship between organization development and organizational entrepreneurs in Yasuj University of Medical Sciences.

H<sub>0</sub>: There is no significant relationship between organization development and organizational entrepreneurs in Yasuj University of Medical Sciences.

**8.3. The third sub-hypothesis**

H<sub>1</sub>: There is a significant relationship between organization development and organizational entrepreneurs in Yasuj University of Medical Sciences.

**Table 4:** Correlation between organization development and organizational entrepreneurship

Variable	organization development				
	Kendal		Freq.	Pearson	
	Coefficient	Sig.		Coefficient	Sig.
organizational entrepreneurship	0.141	0.002	261	0.191	0.002

According to Table 4, there is a significant and positive relationship between Organization development and organizational entrepreneurship. But this association is weak.

**8.4. The fourth sub-hypothesis**

There is a significant relationship between infrastructure and processes with organizational entrepreneurs in Yasuj University of Medical Sciences.

H<sub>0</sub>: There is no significant relationship between infrastructure and processes with organizational entrepreneurs in Yasuj University of Medical Sciences.

H<sub>1</sub>: There is a significant relationship between infrastructure and processes with organizational entrepreneurs in Yasuj University of Medical Sciences.

**Table 5:** Correlation between infrastructure and processes with organizational entrepreneurship

Variable	infrastructure and processes				
	Kendal		Freq.	Pearson	
	Coefficient	Sig.		Coefficient	Sig.
organizational entrepreneurship	0.158	0.000	261	0.266	0.000

According to Table 5, there is a significant and positive relationship between infrastructure and processes with organizational entrepreneurship. But this association is weak.

**9. Conclusion**

According to results of this study it can be said that

- There is a significant relationship between establishing of management information system and organizational entrepreneurs in Yasuj University of Medical Sciences.
- There is a significant relationship between standardization and organizational entrepreneurs in Yasuj University of Medical Sciences.
- There is a significant relationship between organization strategy and organizational entrepreneurs in Yasuj University of Medical Sciences.
- There is a significant relationship between organization development and organizational entrepreneurs in Yasuj University of Medical Sciences.

There is a significant relationship between infrastructure and processes with organizational entrepreneurs in Yasuj University of Medical Sciences.

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