

## Reviewing the relation between information technology and corporate entrepreneurship in department of tax administration of Golestan province

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*Received: April 20, 2015*

*Accepted: June 15, 2015*

### ABSTRACT

The purpose of this research is to review the relation between information technology (I.T) and corporate entrepreneurship (C.E) and its aspects in department of tax administration of Golestan province in 2012 in order to find a way to increase the level of corporate entrepreneurship (C.E). The population of this research included 150 employees, among which 108 people were selected as sample size through random sampling and Krejcie chart. Data collection was done through questionnaires. Stability of questionnaires of information technology and corporate entrepreneurship were both 89 percent according to Cronbachs' alpha. Also in order to check the validity of questionnaires, content validity was applied and on this basis questionnaires were approved by relevant professionals. Analysis of the yielded data from questionnaires was performed by SPSS in two descriptive and illative sections (Pearson correlation test and regression model). Results indicate that there is a meaningful relation between information technology and corporate entrepreneurship (CE) and its dimensions.

**KEYWORDS:** Information Technology, CE, information

### INTRODUCTION

During the recent years, the whole world has witnessed the revolution of information and there have been great social evolutions, in a way that under the influence of these evolutions, the current century has been titled as information technology. In the age of information, people's information and awareness levels have developed and with the explosion of the world through the capabilities of this age they have reached a balance and have been controlled. In this age, world is consisted as connected villages in which people can travel anywhere at any time or get the news or even send there a message. Internet, cellphones, wireless calculations software, hardware and artificial intelligence are the phenomena of this age. Nowadays entrepreneurship is highly dependent on I.T packages and takes several benefits from it. It may not be exaggerating to consider entrepreneurship as an impossible topic without information technology. On the other hand, development of information and communications technology is in debt with entrepreneurship. Entrepreneurial activities lead to recognition of requirements, creation of ideas and birth of technologies. Entrepreneurship is the engine of technology development and creation of new technologies. Advanced countries are eager to lead in applying entrepreneurship and technology development. Global evolutions indicate that information and communications technology have been the most important activity contexts for these countries. Developing countries are also rapidly moving towards achieving information technologies and their implications. For instance, the state of Korea has assigned the highest priority to its information technology among its five technologic activities of information technology, Bio-technology, Nano-technology, environmental technologies and cultural technologies (Loudon, 2000). Based on this information, it will be also desirable for our country to deepen its activities in technological domains as rapid as possible to have a word to imply in the competitive globe of age of information. Golestan provinces department of tax administration like all other organizations in the new age of technology requires more implications of new technologies such as information technology in order to align with the new age and be able to achieve its corporate goals especially entrepreneurship through application of information technology. For this purpose, in this research it is tried to provide some aid in achieving this goal in this department through presentment of applicable solutions and recommendations.

#### Main purpose:

- Reviewing the relation between information technology and corporate entrepreneurship in department of tax administration of Golestan province.

#### Subsidiary purposes:

- 1- Reviewing the relation between information technology and decrement of paper works in department of tax administrations of Golestan province
- 2- Reviewing the relation between information technology and employees' behavioral changes

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- 3- Reviewing the relation between information technology and employees' strategic insight in department of tax administration of Golestan province.
- 4- Reviewing the relation between information technology and providing a high energy environment in department of tax administration of Golestan province.
- 5- Reviewing the relation between information technology and employees' supportive environment in department of tax administration of Golestan province.

### **Theoretical basics of the research**

#### **Information and communication technology:**

In the beginning of 1990s the whole set of hardware, software, networks and their related industries were titled as information technology. In information and communication technology (ICT) the emphasis is on communicational dimension, in a way that communication is considered as a must without which information technology is unable to provide service. Information and communication technology is a phrase that is related to any type of communicational device or program such as radio, television, cellphones, computers, software, network hardware, satellite systems and Etc. which are related to several different services and programs (teleconferencing, distance education).

Information and communication technology is normally more exactly and applicably reviewed in a special concept and position such as information and communication technology in education, hygiene, libraries and etc.

Information and communication technology is referred to a set of hardware, software, network and communicational facilities for the purpose of desirable access to information.

Convergence among computer and communication forms information and communication technology (The bond among computers and operation of all of its functions specially processing and storing data with several communicational facilities). (Biglary, 2010).

#### **Corporate entrepreneurs:**

Entrepreneurs are people who look around with the hope of any sign of business. Uninterrupted consciousness is one of their specialties and nothing can interrupt their success. Schumpeter believes that the entrepreneur is the main force in economic development and his role is defined as innovation or creating new combinations from materials. In other words his job is innovative destruction. Also Batiste believes that entrepreneurs move sources and resources from positions with low efficiency to positions with high efficiency and this is considered as one of their elements of success because appropriate allocation of instruments, equipment, funds, raw material and human resources leads to growth of the corporation. Generally it can be stated that entrepreneur is someone who illustrates an ideal future for his organization's success through optimism, taking risks and working hard in challenging situations (Lin Dorian, 2012).

#### **Dimensions of corporate entrepreneurship:**

Dimensions of corporate entrepreneurship form the point of view of Hirsch and Antonic (2003):

With respect to reviews performed by Hirsch and Antonic, they counted 8 dimensions for corporate entrepreneurship. They believe that corporations' internal entrepreneurship must be considered as a multi dimension concept consisted of 8 simultaneously separate and connected dimensions. These dimensions are as follows:

- 1 and 2- New units and businesses
- 3 and 4- Innovation in processes and products/services
- 5- Transformation of organization
- 6- Venture
- 7- Leadership
- 8- Aggressive competition

Dimensions of corporate entrepreneurship from the point of view of Thompson (1999): he considers five dimensions of innovation, venture paradigm, representation of ideas, smooth entrepreneurship and hard working for the formation of corporate entrepreneurship and existence of these dimensions are crucial for corporations (Haadi zadeh, Moghaddam, 2005).

#### **Types of entrepreneurship in corporations:**

Different experts have presented different scientific frameworks and implications for development of an entrepreneurial corporation in which many types of necessary activities with influences on procedures are considered. In this research most important models of corporate entrepreneurship are pointed out.

#### **Ackhels Vance model:**

This model tries to conceptually review the effects of individual entrepreneurial behaviors on organizations' entrepreneurial success, in other words this model shows the abilities of the corporation for

surviving in a dynamic environment and the effects of the behavior of employees on the structure of the corporation which are crucial for success in entrepreneurial activities.

#### **E4 model of Xavier Mendoza:**

The e4 model was proposed in 2004 by Xavier Mendoza. This model is goal based and tries to achieve four goals which are important for corporate entrepreneurs' success. These four goals include: effectiveness, empowerment, equality in benefits and rewards, equality in authorization and action freedom. The e4 model is a general public model which presents a framework for corporate success which is based on four basic foundations. Also the latter model proposes two recommendations in order to guarantee corporate success:

1- Valid and significant rewards: instead of promotions, employees must be awarded with significant rewards.

2- Periodic entrepreneurship: this issue addresses the respective changes and substitutions of entrepreneurs in corporation. This type of corporate entrepreneurship turns into a forming opportunity from a benefited opportunity. This transformation is usually accompanied by important and significant rewards (Ahmad Poordariani, 2004).

#### **History of research**

Abtin (2002) in a research titled as reviewing the effects of information technology on inter-organizational communications reached the conclusion that implying information technologies are effective in inter-organizational communications of county level.

Sharifi Zamani (2002) in his research titled as reviewing the relationship between information technology and leadership style in university of TMU reached the conclusion that implication of information technology in a corporation is in the same direction with corporate leadership style. It means that it's along being more corporate in leadership style that the most uses of information technology will become possible. The positive slope of corporate styles' graph on the basis of information technology indicates this issue. It seemed that obligatory style was a context for less implication of information technology. The negative slope of curve of obligatory style indicates this issue.

Madhooshi and bakhshi (2003) in their research titled as reviewing entrepreneurship barriers in university with the goal of identification of most important environmental and internal barriers for corporate entrepreneurship in university of Mazandaran reached the conclusion that: internal barriers leave the most negative influence on entrepreneurship in Mazandaran University. Environmental had least influences. Among the internal barriers the elements of inappropriate decisions of principals and managers in choosing lower level managers and among other barriers elements of social-cultural variable and among environmental elements, lack of competition had the most negative influences on universities' entrepreneurship.

The research performed by Fifer and Leblebaisi (1998) was one of the eye-catching researches related to information technology and corporate structure which indicated that the relation between information technology and concentration is a negative relation and correlation coefficient between information technology and lack of concentration is about 68 percent, and also there is a negative relation between information technology and formality, since it makes the organizations' lack of concentration independent from vast implications of documents and formal approaches and leads to decrease in oral communications and generally declines the total formality of organization. The relation between information technology and categorization of tasks is a positive relation. Overall they expressed that evidence indicated a meaningful influence of information technology on corporation structure.

### **RESEARCH METHOD**

The method of this research is a descriptive one, and one of descriptive research methods is correlation research which is used in this research. In this type of research relation between variables are analyzed based on research goals. In terms of type, this research is considered as a applicable research.

Population and sample size: our population in this research is all 150 employees of department of tax administration of Golestan province.

Sample size and sampling method: since with respect to Krejcie Morgan chart and statistical calculations the sample size was determined as 108 people, simple random sampling method was used. After the questionnaire was completed and ready, it was handed out to employees of department of task administrations.

Research model: conceptual model of the research is retrieved from Lutidas and Vasilees model (2007).

#### **Data analysis**

The research method is descriptive correlative. Information technology and corporation entrepreneurship researches' validity with use of Cronbachs alpha are 89% and 89% respectively for questionnaire of information technology and the questionnaire of corporate entrepreneurship and a validity test was performed to approve the

validity of the questionnaires and respective questionnaires were approved by relative professionals. Analysis of the yielded data from performance of questionnaires was performed by SPSS in two descriptive and illative sections (Pearson correlation test and regression model).

## **Findings**

### **Hypotheses test:**

Main hypothesis: there is a relation between information technology and corporate entrepreneurship in department of tax administration of Golestan province.

Calculated correlation level between two variables is 0.710 with less significance level. We conclude that these two variables are not separate or in other words, the hypothesis is meaningful and the main research hypothesis gets approved in error level of -0.05. The value of A VONA (SIG) is less than 0.05 which addresses the direct relation between information technology and corporate entrepreneurship. The value of R square is 0.504 and shows that 50.4 percent of corporate entrepreneurship evolutions are under the influence of information technology. With respect to the table value of F is 7.689 which were significant at 0.00 with 38 degrees of freedom and this level is less than 0.05. On this basis we conclude that corporate entrepreneurship is influenced by information technology.

### **Subsidiary hypothesis test:**

There is a relation between information technology and decrement in paper works in Golestan provinces' department of tax administration.

Correlation coefficient between information technology and decrement in paper works is 0.510 with significance level of 0.004 which is less than 0.06. On this basis existence of a meaningful relation between these two variables is assured by 96 percent.

### **Second hypothesis test:**

There is a relation between information technology and behavioral changes in employees of Golestan provinces' department of tax administration.

Correlation coefficient between information technology and employees' behavioral changes is 0.624 with significance level of 0.00 which is less than 0.01. On this basis the existence of a relation between information technology and behavioral changes is assured for 99 percent.

### **Third hypothesis test:**

There is a relation between information technology and Golestan provinces' department of tax administrations' employees' strategic insight.

Correlation coefficient between information technology and employees' strategic insight is 0.522 with significance level of 0.000 which is less than 0.01. On this basis the existence of a relation between information technology and employees' insight is assured for 99 percent.

### **Forth hypothesis test:**

There is a relation between information technology and creating an energetic environment in department of task administrations of Golestan province.

Correlation coefficient between information technology and creating an energetic environment is 0.561 with significance level of 0.000 which is less than 0.01. On this basis existence of a relation between information technology and creating an energetic environment is assured for 99 percent.

### **Fifth hypothesis test:**

There is a relation between information technology and employees' supportive environment in department of tax administration of Golestan province.

Correlation coefficient between information technology and supportive environment is 0.529 with significance level of 0.000 which is less than 0.01. On this basis existence of a relation between information technology and supportive environments is assured for 99 percent.

## **Conclusions**

With respect to performed statistical analyses it was shown that information technology must be apriority in economic system such as department of tax administration and the contexts for appropriate establishment of hardware and software related to this technology and applying them on employees and leading to growth in level of entrepreneurship through these new technologies to play a leadership role in this context. The conclusions of this research are specific to geographical domain of Gorgan, the capital of Golestan province and may not be generalized for other provinces.

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