



ELSEVIER

Contents lists available at ScienceDirect

## Technology in Society

journal homepage: [www.elsevier.com/locate/techsoc](http://www.elsevier.com/locate/techsoc)

## Gap analysis of current and desired states of entrepreneurship development components in the field of ICTs in Iran

Negin Fallah Haghighi<sup>a,\*</sup>, Hojatollah Hajihoseini<sup>a</sup>, Ghasem Ramezanpour Nargesi<sup>a</sup>,  
Masoud Bijani<sup>b</sup>

<sup>a</sup> Research Institute for New Technology Development Studies (RINTDS), Iranian Research Organization for Science and Technology (IROST), Tehran, 3353136846, Iran

<sup>b</sup> Department of Agricultural Extension and Education, College of Agriculture, Tarbiat Modares University (TMU), Tehran, 1497713111, Iran

## ARTICLE INFO

## Keywords:

Entrepreneurship development  
Gap analysis  
Information and Communication Technologies (ICTs)  
Iran

## ABSTRACT

At present, Information and Communication Technologies (ICTs) have led to many developments in all social activities including entrepreneurship, and this is regarded as a major modern entrepreneurship instrument; though, this industry is still immature in Iran, it causes challenges in the field of entrepreneurship development. This study aimed at evaluating the current and desired states of entrepreneurship development components in the field of ICTs. In this regard, factors relevant to the entrepreneurship development towards ICTs were identified in eight major areas, and the gap between current and the desired states was then measured. The statistical population in this study (N = 47) consisted of ICTs experts, professionals and managers who had some experience in entrepreneurship in the field of ICTs. Data collecting was done through a questionnaire. The results showed that there was a significant difference between the current and the desired states of eight entrepreneurship development components towards ICTs; Meanwhile, the greatest gaps were observed for the following components respectively: 'Development of Small and Medium-sized Enterprises (SMEs)', 'support, technical and managerial services' and 'supporting entrepreneurship' in the field of ICTs. On the other hand, the minimum gap was reported for 'infrastructure development', indication of the better state of this component than other entrepreneurship development components in the field of ICTs.

### 1. Introduction

Economic, social and cultural conditions in Iran are in a way that needs to be solved at present and in future. Iran's young population, necessity of making job opportunities and the importance of oil that is continuously descending in Iran economy, are three major factors which make macro-policy makers bank on other sources except oil. Undoubtedly, one of these sources is 'entrepreneurship' and its components. Different contexts have been defined for the emergence of 'entrepreneurship development', one of which is the information and communication technology (ICT) industry. Over the recent years, ICTs have been proposed as the most significant factor in economic development and its extraordinary power has resulted in fundamental changes in the structure of research, development and education. According to the Organization for Economic Cooperation and Development (OECD), ICT increases the rates of technological progress, economic growth and productivity on one hand, and on the other, it is considered as a source of social change affecting other parts of the economy [1]. The meaning of information and communication

technology (or technologies) (ICT/ICTs) in this study are the infrastructure and components that enable modern computing; Although there is no single universal definition of ICT, the term is generally accepted to mean all devices, networking components, applications and systems that combined allow people and organizations (i.e., businesses, nonprofit agencies, governments and criminal enterprises) to interact in the digital world. Nowadays this field is considered as a ground for entrepreneurship. In spite of the fact that there is no single definition of ICT, it is mostly defined as a set of hardware, software, networks, and media used for collecting, storing, processing, transmitting, and displaying information.

In the fourth economic, social and cultural development plan of Iran, the ICT industry is of great concern. In Iran, significant efforts have been made for developing ICTs, including implementation of plans such as "ESSMDS (in Persian: NEMATN) (Engineering System, Software Manufacturing and Development Standards)", "ECDP (in Persian: TSMA) (Electronic Content Development Plan)", "SIE (in Persian: AFTA) (Security of Information Exchange)", "National Internet" and "most importantly, "PDNICT (in Persian: TGFA) (Plan for Developing

\* Corresponding author.

E-mail addresses: [nfallah@irost.ir](mailto:nfallah@irost.ir) (N. Fallah Haghighi), [hajihoseini@irost.ir](mailto:hajihoseini@irost.ir) (H. Hajihoseini), [ghasem\\_nargesi@irost.ir](mailto:ghasem_nargesi@irost.ir) (G. Ramezanpour Nargesi), [mbijani@modares.ac.ir](mailto:mbijani@modares.ac.ir) (M. Bijani).

<https://doi.org/10.1016/j.techsoc.2018.03.003>

Received 21 April 2017; Received in revised form 21 January 2018; Accepted 23 March 2018

0160-791X/ © 2018 Published by Elsevier Ltd.

National ICT). According to the annual world report of the world economic forum in 2012–2013, with regard to top 10 networked readiness indices (namely legal and political profiles of a country; business environment; ICT infrastructure; financial resources for ICT development; skills required for ICT use and development; individuals' use of ICT, the use of ICT by organizations, companies and businesses; government's use of ICT to offer government services; impact of ICT on economy and impact of ICT on social issues), Iran ranked 101 out of 142 countries with a score of 3.4 out of 7; and this reflects Iran's non-satisfactory state. This means that the full benefits of ICT with respect to competitive strategies are at a low level for individuals and organizations in Iran [2]. In other words, ICT has not seriously reached operation and effectiveness levels yet and it is located at the intermediate level of readiness in Iran [3].

The use of ICT as an essence for the development of entrepreneurship can contribute to the establishment of e-markets and sell of goods in cyberspace, consequently resulting in making job opportunities and economic growth. There was little attention to entrepreneurship by the implementation of the Third Economic, Social and Cultural Development Plan in Iran. Unemployment problem and predications indicating the aggravated conditions in 2000, raised the entrepreneurship issue at the time of the third development plan in the Ministries of Science, Research and Technology (MSRT), Health, Treatment and Medical Education, Agriculture, Industries and Mines as well as other institutions such as the SID due to the interaction between this issue and their activities. Besides, making job opportunities that can be one of the most important consequences and economic outcomes of entrepreneurship, brings about other positive consequences including promotion of creativity, innovation and its development, development of technology, wealth in society, and enhancing welfare, as well as income generation and distribution in society.

Thus, to provide the grounds of ICT development in the country and to consider the development of entrepreneurship in this field, an evolutionary behavior, exact identification of the current state, a comparison of it with the desired state and also an analysis of the gap between these two situations are required to provide planned structuring, to follow-up monitoring for support functions and to prepare appropriate grounds for entrepreneurship development in the field of ICT.

In short, to realize the long-term vision of Iran, identification of the entrepreneurship development framework in ICT industry, which is a relatively new concept is much more important by the fact that, with the development of ICT entrepreneurship, other sectors continue their development and productivity; therefore, macro and comprehensive frameworks might just be developed through conducting such studies. Numerous studies have been carried out by researchers on ICT, most of these studies point to the effects of economic growth, the acceptance and use of ICTs in different domains, and the impact of ICT on entrepreneurship development. Few studies have focused on the development of ICT entrepreneurship. Thus, this research investigates ICT from a different perspective than to other studies, and this is what makes distinction in this study.

The purpose of the present study is to analyze the gap between current and the desired states of entrepreneurship development components in the field of ICT. To achieving the mentioned purpose would require considering the following specific objectives:

Examining the current and the desired states along with the gap between two states of:

- A: Policy making and legislation component of entrepreneurship development in ICTs;
- B: The component of financial support in the field of ICTs;
- C: The component of support, technical and management services in the field of ICTs;
- D: The component of development of SMEs in ICTs;
- E: The component of supporting ICTs entrepreneurs;
- F: The component of supporting technology and innovation in ICTs;

- G: The component of infrastructure development;
- H: The component of promoting entrepreneurship in ICTs.

## 2. Theoretical background

Like other areas, entrepreneurship not only has benefited from ICT advantages but also is considerably dependent upon ICT infrastructures as ICT development. It is also indebted to entrepreneurship [4]. Having different features and functionalities, the ICT has shown considerable flexibility in the field of entrepreneurship and these features have enhanced the efficiency of this technology in terms of entrepreneurship and job opportunities [5].

ICT entrepreneurship has a wide range of activities, and there are many opportunities for information entrepreneurship at each level of hardware, software, information, communication, and their applications. Besides, in this area entrepreneurship is much more convenient and practical than entrepreneurship in other areas, because ICT is one of the advanced and innovative technologies that on the one hand is the result of Innovative entrepreneurship and economic development, and on the other, due to its widespread dimensions and domain has succeeded in making opportunities for innovation and flourish of new global economy [6].

Entrepreneurship development is an evolutionary behavior that requires planned structuring, follow-up monitoring of support functions and the availability of the appropriate grounds [7]. Entrepreneurship development prerequisites include access to required services, credit facilities and resources, an integrated coordination and collaboration between institutions concerned regardless of the inefficient bureaucracy on one side, and empowering entrepreneurs in the form of entrepreneurial networks in various sectors and subsectors on the other [8,9]. Development of entrepreneurship in the field of ICT is a multi-dimensional concept influenced by several factors.

In this regard, an adaptive comparison of entrepreneurship development policies in different countries shows that the dimensions of entrepreneurship development policies can be classified into six groups.

1. Entrepreneurship promotion aimed at promoting a positive attitude towards entrepreneurship;
2. Entrepreneurship education in the educational system
3. Improving the environment of startup companies, facilitating entry, survival and growth of companies and easy exit through reduction of administrative and regulatory requirements;
4. Provision of initial capital and running aimed at increasing financing for new entrepreneurs and startup companies.
5. Supporting the business of startup companies, increasing the quantity and quality of business support for emerging and new entrepreneurs;
6. Strategies to focus on the target group by increasing the rate of business startup between community groups or increasing the number of innovative entrepreneurs [10].

The development of ICT entrepreneurship can be based on the abovementioned dimensions.

Regarding the role of ICT and its effect on entrepreneurship, several studies have been carried out that all indicate a positive relationship between information technology and the intensity and strength of entrepreneurial activities. In other words, ICTs can increase the speed and opportunities of entrepreneurship [5,6,11–13]. For example, Hajizad et al. (2012) described the impact of ICT on entrepreneurial skills (managerial, technical, personal) of instructors in technical and vocational training organization in Iran [11]. Feiz et al. (2013) examined the impact of ICT on organizational entrepreneurship in small and medium-sized companies of Semnan industrial town. Their results indicated that ICTs have a significant effect on the innovation of products and services [13]. However, few studies are conducted on the development of ICT entrepreneurship.

Download English Version:

<https://daneshyari.com/en/article/6851418>

Download Persian Version:

<https://daneshyari.com/article/6851418>

[Daneshyari.com](https://daneshyari.com)