

Full Length Research Paper

Identifying the challenges related to policymaking institutions for entrepreneurship formal education in Iran

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In this paper, we are going to determine how the institutions play important role in policy making for entrepreneurship education in universities of Iran. So, after a brief review on literature, research analytical model is extracted by pointing out theoretical basics and research dimensions. In the meantime, the way to test the model, initializing the dimensions and concepts, models of performing the research project, data collection methods, data analysis, validity and reliability are addressed. Since the opinions of 102 elites/connoisseurs in entrepreneurship field (including professors, experts of entrepreneurship centers, offices at over 16 universities and official organizations) are measured through questionnaire using the method survey-kind. Questionnaire items are designed by segregating conceptual model dimensions into the types of entrepreneurship trainings, the components of educational system, policymaking steps and policymaking institutions in the template of Likert's five option scale and null (no impact) option. To review the reliability, Chronbach's alpha (87%) is used. To review the validity, elites' poll is utilized. Research questions were responded to after collecting the ideas and information through statistical techniques. Finally, the findings indicate the important institutions and the challenges related to them that have the main influence on the process of policy making in this field. At the end of article the verified challenges and some related recommendations was proposed for improving this system.

Keywords: policymaking, policymaking institution, entrepreneurship education, Iran.

INTRODUCTION

The need for university engagement in entrepreneurship education gets societies to make relevant policies for this issue. Recent research has shown that universities have not been successful in creating sustainable environments that enhance technology transfer and in the commercialization of intellectual property of the university (Bok, 2003; Wright et al., 2004). In contrast, research universities have been able to capitalize on generating revenue from their research projects resulting in patents and other

methods of technology transfer (Mosey et al., 2006) Furthermore, as a result of bias that exists in academia, regional universities may be viewed as institutions that repress the growth of human and social capital and they have not been able to capitalize on the large funding models (Wright, 2004).

More recently, the role of universities in regional development has been seen as transcending this narrow technical and economic approach to embrace the role of universities in enhancing human capital within a region. Examples include certificate and degree programs in entrepreneurship, workshops and seminars, technical and administrative assistance, and resource referral, as well as recruiting students from outside the region and placing them in the local companies through internships, co-ops, and part-time employment; conducting continual

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Abbreviations: SMEs, small and medium enterprises; NGOs, non-governmental organizations; OEM, organizational elements model.

and professionally developmental programs to enhance the skills and knowledge potential of local managers; embedding international businesses by targeted training programs and research links; providing a gateway between the broader and international knowledge base with small and medium enterprises (SMEs); and providing strategic analysis and leadership within local civic society (Lundvall and Johnson, 1994).

One of the challenges of entrepreneurship education in Iran is due to the problems coming from policymaking institutions. That is to say, policymaking institutions do not function properly. Therefore, this research project aims at studying the present and optimal functions of the policymaking institutions in entrepreneurship education, examining the gap between the present and optimal conditions, and identifying the challenges of reaching the optimal conditions.

Research questions

1. Is there any difference between status quo and desired situation of policymaking institutions in entrepreneurship formal education?
2. How much difference exists in the role of policymaking institutions in different sectors?
3. What are the current challenges in the entrepreneurship education policymaking in Iran and their applied solutions?

Research objectives

Primary objectives

Studying policymaking challenges in entrepreneurship formal education in Iran

Secondary objectives

1. Documenting and drawing status quo of policymaking in entrepreneurship formal education system in Iran
2. Designing and clarifying policymaking desired model in entrepreneurship formal education system in Iran
3. Identifying current challenges of policymaking in entrepreneurship formal education system in Iran
4. Providing solutions and applied suggestions in studied field

LITERATURE REVIEW

Entrepreneurship defined

Entrepreneurship is a multidimensional concept, the definition of which depends largely on the focus of the research undertaken. An entrepreneur can fulfill different functions (Fiet, 1996). Hébert and Link (1989) define an entrepreneur as "someone who specializes in taking

responsibility for and making judgmental decisions that affects the location, form, and the use of goods, resources or institutions" (Hébert and Link, 1989). Sahlman and Stevenson (1991) define entrepreneurship as "a way of managing that involves pursuing opportunity regardless of the resources currently controlled. Entrepreneurs identify opportunities, assemble required resources, implement a practical action plan, and harvest the reward in a timely, flexible way".

What is meant with entrepreneurship? Entrepreneurship and innovation are fuzzy concepts that have been given multiple meanings. Innovation and entrepreneurship are often regarded as overlapping concepts. This can be traced back to probably the most well known definition of entrepreneurship, by Schumpeter (1934), who defines entrepreneurs as individuals that carry out new combinations (that is, innovations).

The policy of entrepreneurship education

Comparing the level of entrepreneurship across nations is difficult for several reasons. First, there is no generally accepted definition of entrepreneurship (OECD, 1998a; Lumpkin and Dess, 1996; Bull and Willard, 1993). No wonder entrepreneurship is considered as the solution in policy documents.

Entrepreneurship is a major driver of innovation, competitiveness and growth. Due to their strong presence in key sectors such as services and knowledge-based activities, small enterprises and entrepreneurs play a central role in the EU economy nowadays (European Commission, 2004a).

The emergence of entrepreneurship education into the educational sphere has forced the concept to be interpreted in a broader view. This is, for instance, viewed among the shared goals that the Ministers of Education agreed upon to be achieved in 2010. The catch phrase "opening up education and training system to the wider school" put the spirit of enterprise as a central part in the educational system.

Education and training should provide opportunities to acquire skills needed to set up and run a business. Entrepreneurship is wider than business activity, an active and reactive spirit, something that society as a whole should value and invest in. Education and training establishments should therefore stimulate learners' skills and enterprise spirit throughout their education and training.

Here, entrepreneurship is no longer just equated with business creation but is talked more about as an approach. Though, the connection to business creation is still present, however indistinct. In defiance of the ambition to widen the concept of entrepreneurship, it is defined in a particular way at the different levels in education. In the lower levels there is a focus on personal characteristics; at the level of primary education, entrepreneurship teaching will aim to foster in the pupils those personal qualities such as creativity, spirit of initiative

and independence that contribute to the development of an entrepreneurial attitude, which will prove useful in their life and in every working activity (European Commission, 2002).

At the higher levels, however, there is a shift of focus towards starting a business; at the level of secondary education, the development of the personal qualities mentioned above will continue to be relevant. In addition, entrepreneurship teaching will include raising the awareness of the students about self-employment as a possible career option for instance by running mini-enterprises; specific training on how to create a business (especially in vocational or technical schools). At the level of tertiary education, entrepreneurship teaching will provide the students with specific training on how to start (and run) a business (European Commission, 2002).

The interest in entrepreneurship education has become a central issue in the regional policies. The work on changing attitudes towards enterprising must begin early in the school. The school should give the students the understanding that running an own company is as usual as being employed.

In the later stages of school, education could be directed more towards how to start and run an own company. When the student has reached upper secondary school he or she should not be unfamiliar with starting a company throughout the rest of the school period (Dalarna, 2003).

A change of attitudes towards enterprising is crucial to create an increasing growth. Changing attitudes takes time. School plays an important role and should develop students' spirit of enterprising regardless of their perceptions about their future professional state as self-employed or employed. Children are creative and enterprising. These characteristics should be encouraged at all levels in the educational system (Gävleborg, 2003).

In these regional policy documents, as well as in policy documents from the national and the European levels, there seems to be total agreement upon what entrepreneurship education should be at the different levels in the educational system. The shift in focus from personal characteristics (such as creativity, self-confidence, responsibility, risk-taking, etc) in the lower levels to business start-up in the higher levels is not really new. Nevertheless, it is not discussed in the policy documents but seems to be taken for granted. The conflicts are not to be found here, though tensions, conflicts and closures are pervasive when it comes to the processes of turning policy into practice.

On the whole, government can train entrepreneurs and small business owners by providing necessary facilities and various resources such as:

1. Nongovernmental organizations (NGOs)
2. Governmental training institutes and universities
3. Local organizations (local governments)
4. Private training institutes

5. Trading and commercial chambers
6. Management development institutes
7. Commercial associations
8. Advising organizations
9. Self-running training institutes on small businesses (Moghimi, 2002).

The components of entrepreneurship educational system

To describe components of entrepreneurship educational system, we can use organizational elements model (OEM).

Organizational elements model (OEM)

The OEM was developed by Roger Kaufman as a tool that can be used to identify the different elements within a system. A system is "a set of interrelated components that work together to achieve a common purpose" (Porter, 2005a). The OEM also "provides a framework of designing and implementing effective means to achieve desirable end results" (Chyung, 2005).

The OEM model is consisted of five elements: inputs, processes, products, outputs and outcomes. These elements are used to link the resources within an organization to the processes that it must develop to attain the ends.

The OEM model can be used when an organization has identified a performance or instructional gap within its personnel or processes, in order to determine what means are required to assure a successful attainment of the ends. The following (Table 1 and Figure 1) visually describes what the OEM model is and shows its five elements. Before using the OEM model, it is important for an organization to understand the difference between the means and ends. The means are the inputs and processes which the organization can use to obtain an end. The ends are the by-products of the means to the organization and to society.

The OEM model also takes into account three different types of need levels, a mega level (or societal level), a macro level (or organizational level), and a micro level (or individual/small-group level). These needs allow an organization to identify the different gaps of achieving the end-result.

The OEM can be used by identifying a gap within an organization and applying the above model to determine the needs of the organization in getting an end. The organization can then add the following elements to the model and determine gaps within each element.

Elements of model

1. Inputs : these are the raw materials
2. Processes: this is the how-to-do-it

Table 1. Organizational elements model.

Means	i. Inputs(raw material)	Organizational efforts	Internal to organization
	ii. Processes (how to do it)		
Ends	i. Products (learner/instructor accomplishments)	Organizational results	Internal to organization
	ii. Outputs (organizational accomplishment)		
	iii. Outcomes (effects in and for society)	Societal impact	External to organizational

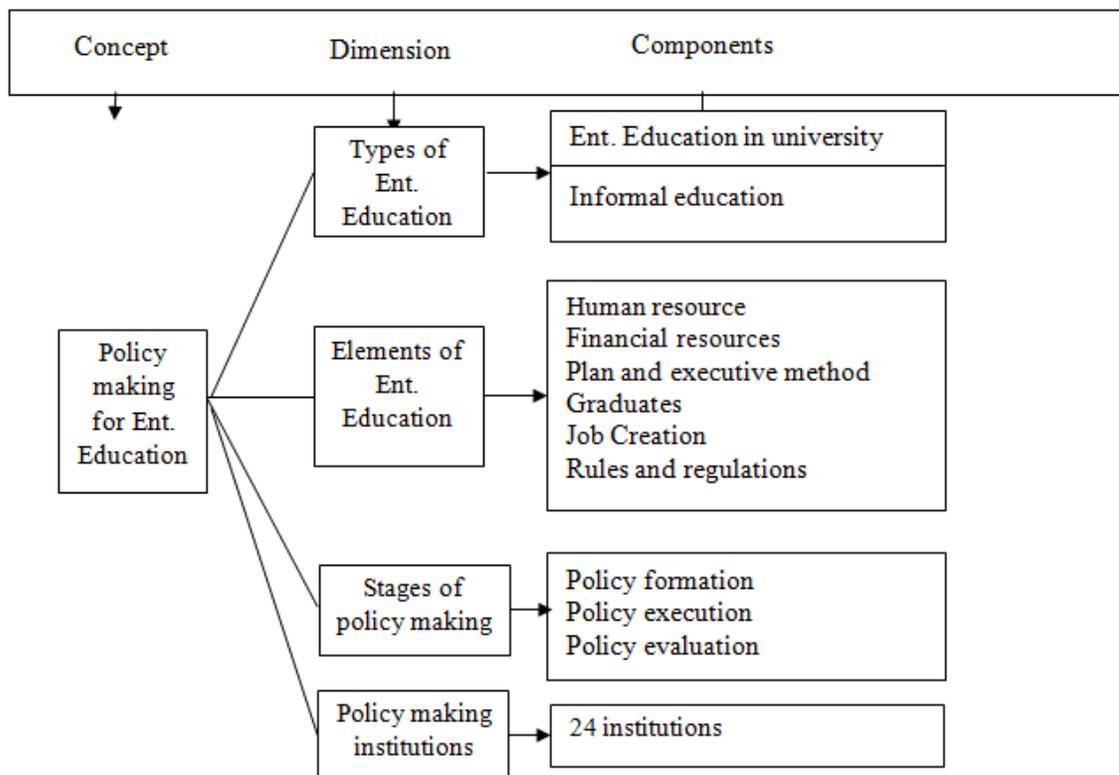


Figure 1. Dimensions, components and indicators of conceptual model.

- 3. Products: these are the results while in the processes
- 4. Outputs: these are the organizational accomplishments; the products delivered to society
- 5. Outcome: these are the effects in and for society (Porter, 2005b).

Although this approach addresses educational system comprehensively, in this research, six components are identified, executed and prioritized in conceptual model based on the experts' survey. These components are:

- 1. Human resource in education system
- 2. Financial resources and facilities
- 3. Plan and executive method
- 4. Amount of Graduates in each period
- 5. Job Creation for him\herself and others
- 6. Rules and regulations

Important variables defined

(I) Policy: decisions made by governments which determine an aim and tools to achieve it (Hewlett, 2001). Decisions and policies are taken by various public authorities like Parliament, government and judiciary which protect public interests (Alvani, 2006). (II) Entrepreneurship: according to definition, entrepreneurship is the use of opportunities to create changes. Entrepreneurship means to establish a start-up firm through innovative and risk-taking management (Moghimi, 2006). (III) Entrepreneurship education: it means educating and training business skills (including both specialized and general educations) provided for various social levels. Based on studies in Iran, there are two kinds of entrepreneurship education: formal education and informal entrepreneurship education. In this article we address formal education

that encompasses entrepreneurship education in high schools and universities of Iran. Of course, informal education in entrepreneurship deals with short term periods of education, which is not considered in this article. (IV) Policy making for entrepreneurship education: considering aforementioned definitions, entrepreneurship education includes all efforts, plans and programs executed in various countries to increase tendency toward entrepreneurship. Therefore, the policymaking process in this field includes the steps of formation, execution and evaluation the policies in entrepreneurship education. In this article we address all three stages of policy making.

Conceptual framework

Based on evaluations in comparative studies, there are many models and paradigms to train entrepreneurship. To draw a conceptual framework of this research project, dimensions, components and indicators of policymaking in entrepreneurship education should be determined and drawn in the format of schematic models. To draw this model, it is necessary to have an exploratory study. Therefore, conceptual framework is drawn by using following methods:

1. Interviewing 10 entrepreneurship experts/professors.
2. Studying the documents while studying the documents on policymaking literature, a broad study was conducted regarding public policies on entrepreneurship development in Iran and other countries (20 countries) and entrepreneurship authorities in Iran.

To extract the challenges, it can be said that there are many dimensions, components and indicators in designing policymaking model. In this conceptual model, the first dimension is entrepreneurship education, the second one is policymaking and the third one includes policymaking authorities. The title, role and status of each authority in policymaking process are determined.

METHODOLOGY

Considering the type and nature of questions and data collection methods, this research is an applied one in terms of utilization, exploratory in terms of objective, longitudinal in terms of time (a five year period from 2004 to 2009) and a mixture of qualitative and quantitative methods in terms of data collection technique. Expert selection method was used to measure research model. Factors and indicators are tested by questionnaire.

To answer the questions, respondents should determine the role of each policymaking institution in status quo and desired status regarding each component of entrepreneurship education system in each steps of policymaking. Hence, respondents should choose a number between zero and six (from 0 = no role to 5 = high role).

Research scope

In terms of thematic scope, present research project aims at analyzing policymaking in entrepreneurship formal education in Iran.

Additionally, the dimensions and types of entrepreneurship education, policymaking institutions, entrepreneurship education system components and policymaking steps are considered in this research project. In term of time scope, this research has addressed a five year interval (2004 to 2009). In terms of spatial scope, required data are collected from 16 relevant institutions in Tehran, since Iranian entrepreneurship education policymakers are concentrated in the capital city.

Data collection methods

The main data collection method in present research project is to study the documents/evidences and to fill in the questionnaire. If necessary, documenting and library methods are also used to complete research literature. Relevant documents and evidences include:

1. The document of the fourth development plan of Iran
2. The 20year outlook (vision) of Islamic Republic of Iran
3. The structures and terms of references for ministries and relevant organizations such as Labor and Social Affairs Ministry, Labor and Social security Institute, etc in order to identify those institutions which affect the policymaking in entrepreneurship education.
4. Minutes and approvals of relevant executing institutions on entrepreneurship education.

The aforementioned documents and evidences are initially studied to review and identify relevant policies and then to recognize the authorities of developing, executing and evaluating the policies in order to gather policymaking methodology in this field.

Statistical population and sample

Regarding the special traits of this research, statistical sample is comprised of experts and connoisseurs of policymaking in entrepreneurship education system, including managers and experts with B.A., M. A. and Ph. D. degrees in policymaking organizations and institutions. The statistical sample is consisted of 188 experts from 16 organizations.

Since the sample is not extensive, a questionnaire was distributed among all members with the objective of enumeration. Despite the persistent pursuing, only 102 questionnaires were collected. This number is sufficient based on Morgan's table. On this basis, all analyses were conducted by statistical analysis techniques.

Data analysis and assumption tests

After collecting the data via referring to documents and evidences by using qualitative analytical techniques such as content analysis technique, all data were extracted and were categorized by considering research theoretical framework. The data obtained from experts' survey was analyzed by using relevant tests and software such as SPSS and Microsoft Excel.

To analyze the data obtained from questionnaires, statistical techniques such as Freedman analytical testing variance and compare means T-Test (Student T-Test) were used. Through these statistical techniques, we could generalize the statistics of sample to parameters of population.

Validity and reliability of data collection instruments

To rely upon the validity in designing questionnaire items, connoisseurs were used final development and completion so that

Table 2. Studying the demographical characteristics of respondents.

S/No.	Institution	Frequency	Percent
1	Private sector (institutes)	9	8.82
2	Jahade Daneshgahi	6	5.88
3	Entrepreneurship faculties and departments	9	8.82
4	Karad	3	2.94
5	Scientific parks and incubators	4	3.92
6	Other universities	13	12.75
7	Parliament	3	2.94
8	Ministry of planning and monitoring	6	5.88
9	Labor and social security institute	10	9.80
10	TVTO	8	7.84
11	Ministry of education	4	3.92
12	Ministry of higher education	6	5.88
13	Ministry of Labor and social affairs	10	9.80
14	municipalities	4	3.92
15	Ent. centers in universities	5	4.90
16	High schools	2	1.96
	Total	102	100

similar questions were designed for each component and indicator of the conceptual model.

By using Chronbach's alpha, the reliability of the questionnaire is 87% which shows high reliability and validity.

RESULTS

Here, at first, we present descriptive statistic of the study. Noteworthy, SPSS and Microsoft Excel software are used to draw tables and graphs.

As seen in Table 2, from 190 questionnaire distributed between population, 102 questionnaires were filled in and returned. Following this, 16 institutions were asked which managers and experts shape the research statistical sample. Considering the importance of policymaking institutions, just this demographical trait is provided here. Considering research objectives and questions and according to experts, it is illuminated in the analysis and conclusions segment on how the status quo and the desired status in entrepreneurship formal education are different and what are the challenges and guidelines.

The policies of government in entrepreneurship development in Iran

Arguments on entrepreneurship, particularly entrepreneurship training, do not have a long life. In Iran, due to the consideration of entrepreneurship in third and fourth national economical, social and cultural development program, entrepreneurship development plan in domestic universities was approved which led into activities in some universities. Although training is not effective in developing entrepreneurship and creating businesses by

itself, it is highly vital as a component of development system (Talebi, 2005). Also, studies in USA, Europe and South East Asia show that entrepreneurship trainings can have a remarkable impact if they are provided along with facilitating and encouraging operations (Jahanian, 2007). Some policies in Iran have been formulated to support entrepreneurial activities such as:

1. Entrepreneurship education for all ages
2. Various loans for entrepreneurship in different fields
3. Facilitating the conditions for those who start a new business
4. Some structural changes in government to support entrepreneurs easily
5. Fostering entrepreneurial culture
6. Holding festivals at a national level to glorify entrepreneurship dignitaries (Moghimi, 2002).

Recognized challenges

Having analyzed the questionnaires, the challenges discerned by experts' were extracted. One of the greatest challenges in policy making system refers to the gap between current and desired situation of institutions at experts' view point in this field. These institutions are far-off their desired role. To prove this claim, study results have been presented in Table 3.

To answer the research question "how much is the gap between status quo and desired status in entrepreneurship education", single sample T-Test is used.

Table 3 is drawn to show the distance between status quo and desired status which indicates the role of each institution in each step of policymaking in terms of entrepreneurship education components.

Table 3. The distance between status quo and desired status in entrepreneurship education

Institutions	T-Test for policy formation						T-Test for policy execution						T-Test for policy evaluation					
	Human resource in education	Financial resources	Plan and executive method	Amount of graduates	Job creation	Rules and regulations	Human resource in education	Financial resources	Plan and executive method	Amount of graduates	Job creation	Rules and regulations	Human resource in education	Financial resources	Plan and executive method	Amount of Graduates	Job creation	Rules and regulations
Planning and strategic monitoring directorate	1/80	2/10	1/60	1/50	2/50	1/90	2/50	2/20	1/80	1/70	2/40	1/30	1/70	2/20	1/70	2/00	2/40	1/60
Parliament	2/20	2/10	2/00	1/60	1/90	1/70	2/30	2/10	1/80	1/30	2/30	1/80	1/80	2/50	2/00	1/60	1/80	2/20
High schools	2/00	1/80	1/70	1/90	1/40	1/80	2/20	1/50	1/80	1/90	1/40	1/70	2/10	1/80	1/80	2/20	1/90	1/30
Ministry of Education	2/40	1/80	1/80	2/10	2/10	1/60	2/60	1/90	2/00	2/00	2/00	1/80	2/40	2/10	2/20	1/90	2/30	2/00
Technical and occupational centers	1/90	2/10	1/70	2/00	1/90	2/10	1/90	2/20	2/10	2/10	2/20	1/50	2/10	2/40	2/50	2/30	2/30	1/80
Jahade Daneshgahi	1/70	1/70	1/40	1/50	1/70	1/90	2/00	1/90	1/70	1/40	2/10	1/80	2/00	1/90	1/60	1/70	2/00	1/60
Entrepreneurship faculties and departments	1/80	1/60	1/40	1/90	1/80	2/30	1/80	2/00	2/10	1/70	1/90	1/80	1/90	2/50	2/00	1/70	1/90	2/30
Karad (entrepreneurship education in universities)	1/80	1/50	1/60	1/60	1/40	1/80	1/70	1/50	1/50	1/60	1/60	1/30	1/80	1/50	1/40	1/50	1/20	1/20
Scientific parks and Incubators	2/00	1/90	2/20	1/70	1/80	1/80	2/50	1/70	2/40	2/00	1/70	1/50	2/30	1/80	1/90	2/10	1/80	1/70
Other universities	2/10	1/90	1/90	2/00	1/90	2/40	2/00	1/50	1/60	1/60	2/10	2/50	2/00	1/70	2/00	2/20	2/50	1/80
Scientific parks and incubators	1/80	1/80	1/60	1/30	1/50	1/80	1/90	1/40	1/90	1/90	1/90	1/80	1/60	1/70	1/60	1/80	1/90	1/80
GEM in Iran	1/50	1/70	1/50	1/60	1/80	1/80	2/20	1/90	1/50	1/30	1/50	1/00	2/50	1/40	1/10	1/80	1/50	2/00
Ministry of Higher Education	2/30	1/90	2/20	2/20	2/20	2/00	2/20	1/80	2/20	2/50	2/10	2/10	2/40	2/20	1/70	2/50	2/10	2/00
Labor and social security institute	1/80	1/90	1/80	1/80	1/80	1/90	2/00	1/80	2/20	1/90	1/80	1/90	1/80	1/80	2/00	1/70	1/80	2/40
Ministry of Labor and Social Affairs	1/80	1/40	1/50	1/50	1/50	1/20	1/70	1/40	1/50	1/50	1/30	1/80	2/30	1/80	1/60	2/00	1/50	1/70
Ent. Centers in universities	1/10	1/90	1/00	1/00	1/70	1/70	1/40	1/90	1/50	1/20	1/80	1/20	1/90	1/80	1/70	1/40	2/00	1/70

As mentioned within the research questions and objectives, comparing the status quo with the desired status of policy-making institutions has been the objective of this research. The comparison results show that some institutions are not active in policy-making for entrepreneurship formal education at the current status while they can

play a very active role at the desired status.

The numbers written in the table next to the institutions' names describe the amount of gap between the status quo and the desired status. In fact, the higher number of an institution shows that it has more challenges. Therefore, the first and the second question of the research are

answered here. And the third question of the research in which the experts are surveyed will be mentioned later.

Arguments

Policy-making for the entrepreneurship formal

education might involve plenty of challenges. Some of these challenges are associated with policy-making institutions. They also may be associated with the regulations, job creation, the number the graduates, executive programs, and plans and financial or human resources in the education system. Therefore, in this research project, the challenges of institutions in each of the above-mentioned components are considered and recognized based on the experts opinions and some recommendations are made about them. Most of the recognized challenges are about the policy-making in job creation, human resources and the regulations of the institutions.

In Table 3, higher rank of each institution shows that it has more distance from its actual position. For example, Planning and Strategic Monitoring Directorate of Presidency has a high distance from its position in evaluating HR policies. Other challenges are:

1. The lack of a specific organization in the field of policymaking and even if it existed, it would be left unaccompanied by other institutions.
2. The lack of a certain policy on defined indicators for various dimensions of entrepreneurship education
3. The lack of knowledgeable, experienced and skilled manpower in entrepreneurship and policymaking who can train entrepreneurship.
4. The weakness of education policies in considering specialized educations and emphasis on general entrepreneurship education
5. Respecting efficiency rather than effectiveness in evaluating adopted policies
6. Not considering the execution and evaluation in policy formation step
7. The weakness in policy evaluation system due to the lack of exact and comprehensive data and statistics
8. Centralization and avoidance of assigning necessary power to institutions and provinces in executing the policies
9. Instability in adopted policies
10. Non-execution of devised policies
11. The lack of proper policies in selecting and utilizing education policies appropriate to the current national conditions

RECOMMENDATIONS

Throughout the research and according to the discerned challenges, some recommendations are made by the experts that can decrease the challenges of the entrepreneurship formal education effectively. These recommendations which refer to the recognized challenges are as follows:

1. Selecting a policymaking institution as the main custody of policymaking in entrepreneurship education
2. Establishing a central headquarter to coordinate entrepreneurship centers

3. Considering and emphasizing the execution and evaluation of the policies when developing them
4. Making policymakers believe the status and importance of entrepreneurship in social growth and development
5. Having policymakers notice the systemic relationship between entrepreneurship and other needed assistance to entrepreneurship
6. Considering enculturation, announcement, and advertisement to execute adopted policies
7. Developing proper policies to organize entrepreneurship trainers and teachers
8. Emphasizing the knowledge and experience in the policies of recruiting the training staff of the programs
9. Developing needs analysis policies targeted at learners and audience of courses and adjusting the courses based on the competencies and capabilities of learners
10. Developing the national document of entrepreneurship education policies
11. Reforming baking official regulations to promote and enhance the support for trained entrepreneurs
12. Emphasizing the process by orientation in policy-making system of entrepreneurship education
13. Determining the exact role and status of each institution in policymaking process of entrepreneurship education
14. Developing executive regulations along with provided educations to develop entrepreneurship culture among all people
15. Thematic classification of policymaking institutions, and determining the role of each institution based on a special theme.
16. The governance in policymaking should be taken by government and the executive administration should be assigned to local and private sectors
17. Policymaking to train entrepreneurship since childhood in families, media and journals
18. Designing a local entrepreneurship education paradigm by considering national requirements and conditions
19. Considering the evaluation of adopted policies in the light of an effective education evaluation system
20. Developing policies to adapt and localize entrepreneurship education materials
21. Undertaking surveys of learners and graduates as a tool for effective policy evaluation
22. developing policies to support graduates of the courses
23. Designing a system to evaluate the effectiveness of entrepreneurship education
24. Designing incentive mechanisms for job creation as an effective entrepreneurship education criterion.

REFERENCES

- Alvani SM (2006). Process of policy making, publication of A.T.U. forth ed.

- Bok D (2003). Universities in the marketplace: The commercialization of higher education. Princeton, NJ: Princeton University Press.
- Bull I, Willard GE (1993). Towards a theory of entrepreneurship. *J. Bus. Vent.*, 8: 183- 195.
- Chyung Y (2005). Improve the motivational appeal of online instruction for adult learner: What's in it for me? Retrieved December 06, 2005, from <http://coen.boisestate.edu/yhyung/researchpaper.htm>
- Dalarna Region (2003). Regionalt tillväxtprogram för Dalarna 2004 – 2007.
- European Commission (2002). Final report of the Expert Group on Education and Training for Entrepreneurship Education, Brussels: European Commission.
- European Commission (2004a). Action plan for entrepreneurship, Brussels: European Commission.
- Fiet JO (1996). The informational basis of entrepreneurial discovery, *Small Bus. Econ.*, 8(6): 419- 430.
- Gävleborg Länsstyrelsen (2003). Tillväxt Gävleborg 2004 – 2007.
- Goddard JB, Charles DR, Pike A, Potts G and Bradley D (1994). Universities and Communities, Committee of Vice Chancellors and Principals, London.
- Hébert RF, Link AN (1989). In search of the meaning of entrepreneurship. *Small Bus. Econ.*, 1(1): 39-49.
- Hewlett M (2001). Public policy study. Public administration center pub. First ed.
- Jahanian M (2007). Entrepreneurship. Olume paye pub. First Ed.
- Lumpkin GT, Dess GG (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Acad. Manage. Rev.*, 21(1): 135-172.
- Lundvall BÅ, Johnson B (1994). The learning economy'. *J. Ind. Stud.*, 2: 23-42.
- Moghimi SM (2002). Entrepreneurship as a interdisciplinary field of study. *Mark. Mag.*, 22.
- Moghimi SM (2006). Entrepreneurship in NGO, s in Iran.pub. of Tehran university.
- Mosey S, Lockett A, West HP (2006). Creating network bridges for university technology transfer: The Medici fellowship programmed. *Technol. Anal. Strateg. Manage.*, 18(1): 71-91.
- OECD (1998a). Fostering Entrepreneurship, the OECD jobs strategy, OECD, Paris.
- Porter C (2005a). Week 1: Job Technology: Hard and Soft. Retrieved August 19, from IPT 536 4158/4159 course database.
- Porter C (2005b). Week 8: Organizational elements model. Retrieved October 07, from IPT 536 4158/4159 course database.
- Sahlman WA, Stevenson HH (1991). Introduction, in: Sahlman WA and Stevenson HH (eds), *The Entrepreneurial Venture*. McGraw-Hill, Boston.
- Schumpeter JA (1934). *The Theory of Economic Development*. Cambridge Mass: Harvard University Press.
- Talebi K (2005). First draft of entrepreneurship development in higher education in Iran, Karad office.
- Wright M, Birley S, Mosey S (2004). Entrepreneurship and university technology. *J. Technol. Transfer*, 29: 235-246.