

EXPLAINING THE ROLE OF EDUCATION QUALITY IN UNIVERSITY ENTREPRENEURSHIP: BASED ON GROUNDED THEORY

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ABSTRACT

Nowadays entrepreneurship and higher education are becoming more and more important everywhere in the world and researches in university entrepreneurship are growing. The aim of this article is to study the role of quality education in university entrepreneurship. The research method was qualitative based on grounded theory. Data was collected through a semi structured interview among a purposive sample of entrepreneurship experts. In total, 36 interviews were carried out in October and March 2012. Analyzing method included open, axial and selective coding techniques. Categories in axial coding paradigm were causal conditions, intervening conditions, core category or phenomenon, context conditions, strategies and consequences. Results showed that university entrepreneurship requires an entrepreneurial curriculum which is updated, interdisciplinary and specifically demand driven. Core category comprises entrepreneurial goals and contents that foster entrepreneurship thinking and establish communication between students and business. The Strategies of training and evaluation influence entrepreneurial training as a consequence. Empowering faculty members, training space and equipments play an important role in the enrichment of learning environment. Such training structure influences university entrepreneurship effectively.

Keywords: University entrepreneurship, higher education, entrepreneurial curriculum, grounded theory

INTRODUCTION

Higher education has a significant and real role in developing the economy of countries. Rapid environmental changes have created new conditions for higher education. The results of these conditions are the necessity of improving the entrepreneurship capacities in order to create new businesses, activate capacities, improve existing capacities and solve social problems. Therefore, to respond these challenges, the new mission of universities is to create entrepreneurship capacities in the university graduates (Yadollahi Farsi, 2007, p. 93). Since the emergence of the concept of entrepreneurship, the universities of developed countries have surpassed each other in spreading this concept in their societies and constitutionalized it in their higher education to develop their economies. In Iran, with over twenty years of delay comparing to developed countries, in late 2000, based on the Third Development Plan and by providing a plan called "KARAD", the entrepreneurship project started in 12 universities. By proposing the subject of entrepreneurship in universities, the roles and responsibilities of educational system to the society will look greater. If educational system is such that individuals, in addition to acquiring knowledge, can learn how to use it in the job context and market and learn the world of business, the number of entrepreneurs and consequently newly established businesses will increase (Shah Hosseini, 2009). Therefore, the present study aims at analyzing the role of educational activities in university entrepreneurship in Iran's Universities using a qualitative approach.

LITERATURE REVIEW

Entrepreneurship and University Entrepreneurship

Entrepreneurship, which requires applying energy and enthusiasm to create and perform new ideas and creative solutions, is a dynamic process including vision, change, evolution and creativity. Its main factors include calculated risk, equity and fairness, the ability to form an effective team, improving skills to collect and use resources, basic skills to provide a trustful business plan and at last, identification of opportunities in the contexts in which from the point of view of others, there are anarchy, conflict and chaos (Kuratko & Hodgetts, 2004, p. 2). Universities as the main cores of producing science and developing human capital have a significant role in developing innovation, entrepreneurship and productivity (Katz, 2003). The meanings of the word entrepreneurship are rooted in economics, management sciences, sociology, and psychology and also in applied fields such as higher education, general policies and studies in various sciences (Bygrave & Hoffer, 1991; Viklen, 1994 & Farasatkah, 2009).

Education and University Entrepreneurship

Attempts to enhance educational quality with tendency to more spread advances are of prerequisites of realizing university entrepreneurship. Although in most countries entrepreneurship has enjoyed a high status, entrepreneurship has not appropriately matched with curricula yet. As an example, in Belgium, entrepreneurship has been considered as focal only in economics and some engineering fields. In Slovakia, it is presented only in technical field and in the form of general courses and fields of economics and commerce and teaching entrepreneurship (report of expert group of European commission of enterprise and industry, 2008). Blenker et al. (2008) state that at the present, educational system in university level is not able to improve the entrepreneurial and innovative motivation, capabilities and skills and entrepreneurship education requires methods of learning, pedagogical processes and forms of education which currently there is no professional proficiency regarding them; therefore, this issue signifies the needs for evolution in education, pedagogy and academic fields. To Gibb (2002), what is more contributive to university entrepreneurship is education. To his opinion, teaching entrepreneurship in universities can be done three dimensions: (1) teaching on entrepreneurship; (2) teaching through entrepreneurship and entrepreneurial activities; (3) teaching for entrepreneurship. university entrepreneurship requires an appropriate curriculum development which has been considered by experts such as Luczkiw (2008), Copy (2003), Shepherd & Douglas (1997), and Rabbior (1990).

In the past decades, entrepreneurship has appealed academic researchers' attentions. McMullen et al. (1991) compare case method teaching with the project method in MBA students and graduates of University of Calgary. They find that the project method is more effective for teaching entrepreneurship. McKeon et al. (2006) by investigating the teaching approaches in training entrepreneurship in UK higher education institutions, find that 57% were used for practical courses, 5% for theoretical ones and 25% for a combination of theoretical and practical ones. Comparing traditional approaches with alternative ones in teaching models of entrepreneurship, Lourenço & Jones (2006) find that it seems necessary to merge the traditional approaches such as lecture with alternative approaches, which results in students' active learning. Moylan, McGreevy & Heagney (2007), in a case study on a Program of teaching entrepreneurship, state that the main and primary objective of curriculum of entrepreneurship should be objectivity, capability and entrepreneurial skills as well as active teaching methods. In his research on US universities, Solomon (2008) concludes that 28% know inviting entrepreneurs as the commonest method of teaching entrepreneurship, 43% negotiating, and 44% creating business. Fayolle (2009), in

investigating the process and challenges of teaching entrepreneurship in Europe, finds that the traditional methods of teaching are the commonest ones; however, the most efficient teachings occur through active and creative methods. Arasti et al. (2012), by studying the teaching methods in teaching entrepreneurship find that some teaching methods such as group discussion, official lectures, group projects and simulation are more used than other methods approved by experts.

METHOD, TOOLS, SAMPLING AND METHOD OF ANALYSIS

In terms of methodology, the present study is qualitative and is conducted utilizing grounded theory. To collect data semi-structured interviews with experts were conducted. The population includes the faculty members of state-run universities of Iran which have one of these characteristics: starting up business and setting up knowledge-based companies, collaborating with entrepreneurship centers, developing science - research parks, teaching entrepreneurship, and writing articles or books, or supervising theses related to entrepreneurship. Sampling was conducted through purposive sampling and snowball sampling method regarding theoretical saturation index. Accordingly, interviews were conducted with 36 faculty members of entrepreneurship field who all were distinguished professors of state-run universities. In data analysis, three coding techniques i.e. open, axial and selective ones were used (Lee, 2005).

After primary and secondary coding, six axial concepts were extracted as follows:

1. Organizing the educational structure base on entrepreneurship: merging theory and practice, separating the structure of education based on brain structure of students, equal opportunities for all students (context conditions).
2. Entrepreneurial curriculum: demand-driven curriculum, to-date curriculum, following an interdisciplinary approach (causal conditions).
3. Objectives and content: promoting entrepreneurial thinking, creating and enhancing entrepreneurial characteristics in students, being practical and applied, bridging connection between the student and market, achieving higher levels of the curriculum objectives, having techniques to create wealth (core category or phenomenon).
4. Learning environment: competent faculty members, educational space and place, training materials and tools (intervening conditions).
5. Teaching and assessment methods: teaching methods based on problem solving, invite entrepreneurs to attend the class, doing simulated or quasi-entrepreneurial activities, group teaching, using laboratories of entrepreneurship, providing a report on an entrepreneurial activity, attending knowledge-based companies through cooperation or internship (strategies).
6. Entrepreneurship education (consequences).

The explanation of each of the axial concepts is as follows:

1. Organizing the Educational Structure Base on Entrepreneurship

In the dimension of teaching activities what provides the ground of university entrepreneurship is organizing the educational structure base on entrepreneurship. Currently, educational structures has been organized in Iran's universities in order to improve specialized training and reinforcing and training entrepreneurship is not concentrated. Analyzing the data in this study show that educational structure can be organized based on three components: (1) separating the structure of education based on students' brain structure;

(2) creating equal opportunities for all students; (3) emerging theory with practice. Students are different from each other in terms of brain and cognitive structures. Accordingly, one of the participants in the study states that: “we have students whose brains’ physical part is better than mathematical part. It means that they are not in laboratories, but they do better in improving basic theories”. Shaun Kerry states that according to the conducted studies in California Institute of Technology in 1950’s, the left part of the brain gives us the ability to analyze, using words and working with numbers; conversely, the right part of the brain is responsive to the abilities such as forming and linking concepts, placing details together to achieve a rule of a complete image and being creative. Separating the structure of education is concentrated base on the individuals’ brain structures of 33% of the participants in the study. The educational structures provide students enthusiastic to entrepreneurship with the ground of education by providing equal opportunities (interviewee no. 6). Accordingly, 37% of the participants believed that creating equal opportunities of learning for all students seems necessary and it requires all of them to be familiar with entrepreneurship and be trained in this field. Emerging theory with practice in academic courses is of important necessities of organizing educational structure based on entrepreneurship in universities to which 45% of the participants referred. In this structure, not only creativities emerge, but also, according to the interviewee no. 5, “by merging theory with practice the ground of flourishing entrepreneurial capacities and characteristics will be provided”.

2. Entrepreneurial Curriculum

The nature of education is designing and drawing a curriculum and the main objective of the entrepreneurial curriculum is to train self-confident individuals who are aware of opportunities and tend much more to set up an independent business as well as have the abilities to stand against risks and threats resulted from these risks in the real world (interviewee no. 23). 39% of the participants believed that a curriculum’s being demand-based is one of the concepts of the entrepreneurial curriculum. Also, Etzkowitz (2003) believes that entrepreneurship is derived from the demand-driven viewpoint. Being up to date was concentrated by 23% of the participants in the study. What it is meant by a curriculum’s being up to date is being up to date of general characteristics, objective, method and content of a program based on entrepreneurial indexes and change in them based on these indexes (participants no. 4, 16, 19). “Curriculum is a major part of education; therefore, higher education should primarily develop an interdisciplinary curriculum, then our education would be an entrepreneurial one” (interviewee no. 3). According to Robles (1998), following the interdisciplinary provides approach of interdisciplinary skills which are prerequisites of entrepreneurship, and also result in improving cooperative skills, interaction, grouping and problem solving skills as well as critical thinking.

3. Entrepreneurial Objectives and Content of Curriculum

65% of the participants confirmed the role of objectives and content of curriculum in creating the entrepreneurial attitude and thinking. Entrepreneurship is beyond profession and job, it is a mode of living (Samad Aghaei, 1999, p.2). As an example, the interviewee no. 21 states that “entrepreneurship is life itself when individuals’ thought changes toward it, the individuals’ life styles will also changes. Independence, opportunity recognition, opportunity-seeking and risk-taking are reinforced in relation with entrepreneurial attitude and thinking. 37% of the participants confirm the importance of objectives and content of curriculum in education of the technique of wealth creating. The rapid economic upheavals show the country’s need to reinforce the knowledge-based structures and production of wealth from knowledge. Entrepreneurship is a dynamic process of creating wealth gradually (Danaeifar et

al., 2007, 228). Thurow (2002) states that the basis of wealth creating in today economy is knowledge and proficiency and entrepreneurs create wealth from knowledge and information.

4. Entrepreneurship Teaching Methods

55% of the interviewees confirm the problem solving-based methods. Frequent attendance at problem solving-based learning sessions promotes the level of intellectual skills such as reasoning and inference in students. 33% of the participants refer to inviting entrepreneurs to attend the class, 52% to group teaching and 49% to using entrepreneurship laboratories during teaching.

5. Assessing Students Based On Entrepreneurial Criteria

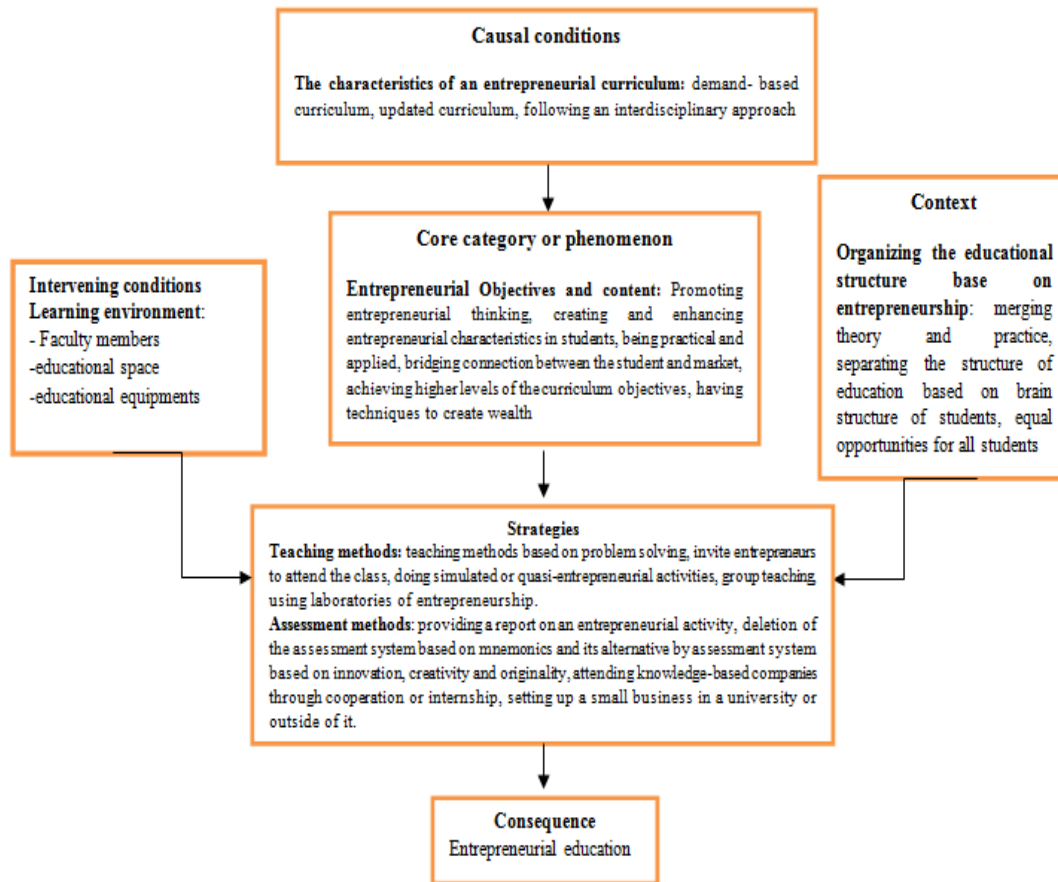
Paying attention to entrepreneurial criteria in assessing students is another concept of entrepreneurship education. One of these criteria can be preparing reports about an entrepreneurial activity which 45% of the participants signify. Students' attendance in a entrepreneurship company (interviewees no. 7, 13, 28, 31), deletion of the assessment system based on mnemonics and its alternative by assessment system based on innovation, creativity and originality (participants no. 3, 15, 27) and appropriation of advantages based on idea creating, innovation and creativity (participants no. 22, 18, 32, 36) are issues concentrated by the participants.

6. Entrepreneurial Learning Environment

25% of the participants approve faculty members' role in entrepreneurship. Faculty members, by familiarizing with types of university entrepreneurship advantages for universities, contribute to students' better understanding of values resulted from entrepreneurial activities (participants no. 25, 30, 34). Preparation of training and educational materials is approved by 19.4% of the interviewees. Not only cannot each of training tools and materials fulfill the educational services, but an appropriate merger of them is required to help professors in teaching students (interviewees 9, 14, 31). Also the learning environment and context are of the issues which contribute to enriching the learning environment that 14% of the participants confirm.

DISCUSSION AND CONCLUSION

University entrepreneurship depends on various factors such as teaching, research, human resource management and organizational structure. While the activities of Iranian universities include 90 percent of academic teaching and 10 percent are appropriated to other activities (Hasangholipoor et al. 2010, p. 42), the present study, aims at analyzing- using the qualitative approach- the role of educational activities which are the first and foremost tasks and responsibilities of universities in university entrepreneurship. Using grounded theory, this research is to present a theory based on the data within the framework of a paradigmatic model which includes causal conditions, grounds, intermediate conditions, axial concept, strategies and outcomes (graph 1).



Graph 1. The axial concepts and causal, context and intervening categories influencing on university entrepreneurship

Based on the results and according to the graph 1, entrepreneurship education is as a set of official educations which are informer, breeder and trainer of any individual enthusiastic official educations. Entrepreneurial educations can have an important role in university entrepreneurship if the academic curricula are entrepreneurial. In other words, the causal condition of entrepreneurial education is to develop an entrepreneurial curriculum which enjoys three general characteristics: being demand-oriented, updated and interdisciplinary. In the entrepreneurial curriculum, what are above all of the issues are objectives and content. Promoting entrepreneurial thinking is possible through entrepreneurial objectives and content. It will also change the views from placement to entrepreneurship. Techniques to create wealth can be one of the objectives of curriculum which should be in the content of their reflecting curriculum. On the other hand, innovation in teaching necessitates adoption of different approaches from traditional teaching. Entrepreneurial teaching methods result in improving entrepreneurial thinking and traditional teaching ones like lectures are not so much related to improving entrepreneurial thinking. Also Gibb (2002) believes that the traditional paradigm of education requires changing and necessitates more concentration on different learning approaches in such a way that teachers use the lectures moderately. Interdisciplinary approaches are more consistent with entrepreneurship and university entrepreneurship as well. Mehr Mohammadi (2009) believes that the changes of today society have caused new needs to emerge, which lead to attempting to fill the gaps of epistemological knowledge. Accordingly, the discussion of merging disciplines rises which the discussion of interdisciplinary is the emergence of the changes in higher education as well. Learning

environment is from “intervening conditions” which is presented in educational strategies and would be enriched by capable and distinguished faculty members. Enjoying entrepreneurial characteristics and having practical experience in entrepreneurship, these faculty members are aware of issues of business in their field of specialization and by moving the educational and research activities in line with entrepreneurship, contribute to university entrepreneurship. Link & Scott (2007) state that investigations show that faculty members are the first ones who can inform students about the expenses and advantages of entrepreneurship and equip them with the knowledge of entrepreneurship if the faculty members are familiar with the implications of entrepreneurship in the classroom situations.

REFERENCES

- [1] Blenker, p. et al., (2008). A framework for developing entrepreneurship education in a university context. *International Journal of Entrepreneurship and Small Business*, 5(1), 120-148.
- [2] Bygrave, W. D. & Hoffer, C. W. (1991). Theorizing about entrepreneurship. *Entrepreneurship, Theory and practice*, 16(2), 13-32.
- [3] Cope, J. (2003). Entrepreneurial learning and critical reflection: discontinuous events as triggers for 'higher-level' learning, *Management Learning*, 34(4), 429-450.
- [4] Danaeifar, H. & Emami, S. H. (2007). Strategy of qualitative research-grounded theory. *Administration think*, 11(2), 69-97.
- [5] Etzkowitz, H. (2003). Research groups as quasi firms: the invention of entrepreneurial university. *Research Policy*, 32, 109-21.
- [6] European Commission. (2008). Entrepreneurship in higher education, especially with non -business students. *Final report of expert group*, European Commission.
- [7] Fayolle, A. & Gailly, B. (2008). From craft to science: teaching models and learning Processes in Entrepreneurship Education. *Journal of European Industrial Training*, 32(7), 569–593.
- [8] Gibb, A. (2002). In pursuit of a new enterprise and entrepreneurship paradigm for learning creative deconstruction, new, values new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*, 4(3), 233-269.
- [9] Hasangholipour, H., Gholipour, A., Mohammadi, M. & Roshandel, T. (2010). Commercialization of knowledge requirements, necessary and mechanisms. *Journal of bussines*, 2(6), 41-60.
- [10] Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education. *Journal of Business Venturing*, 18(2), 283- 300.
- [11] Kuratko, D. F. & Hodgetts, R. M. (2004). *Entrepreneurship: theory, process, practice*. Mason, OH: South-Western College Publications.
- [12] Lee, J. (2001). *A Grounded Theory: Integration and Internalization in ERP Adoption and Use*. Unpublished Doctoral Dissertation, University of Nebraska, In Proquest UMI Database.
- [13] Link, A. & Scott, J. (2005). Opening the ivory tower's door: An analysis of determinants of the formation of U.S. university spinoff companies. *Research Policy*, 34: 1106-1112.

- [14] Lourenço, F. & Jones, O. (2006). Developing entrepreneurship education: traditional and alternative teaching approaches. *International Journal Entrepreneurship Education*, 4, 111-140.
- [15] Luczkiw, E. (2008). *Entrepreneurship education in an age of chaos, complexity and disruptive change*. *OECD Education & Skills*, 18, 65-93.
- [16] McKeown, J., Millman, C., Sursani, S. R., Smith, K. & Martin, L. M. (2006). UK Graduate entrepreneurship education in England, Wales and Scotland, *National Council for Graduate Entrepreneurship Working Paper Series*, Available at: <http://www.ncge.org.uk/>.
- [17] Mehrmohammadi, M. (2009). *Curriculum: Views, Approaches and Perspectives*. Mashhad: Behnashr Company.
- [18] Rabbior, G. (1990) *Elements of a Successful Entrepreneurship/Economics /Education Program*. *Entrepreneurship Education: Current Developments, Future Directions*. Ed.
- [19] Robles, H. (1998). Education for the whole brain, Education reform. *Interdisciplinary TCC'98*, Online Conference (<http://leahi.kcc.hawaii.edu/org/tcon98/paper/robles.html>). Shaun Kerry, M., D. (2005).
- [20] Shaun Kerry, M. D. (2005) *Education for the whole brain*, Education reform [online].
- [21] Shepherd, D. A. & Douglas, E. J. (1997). Is Management Education Developing or Killing the Entrepreneurial Spirit? *Proceedings of the 1997 USASBE Annual National Conference Entrepreneurship: The Engine of Global Economic Development*, San Francisco, California.
- [22] Shahhoseyni, A. (2009). *Entrepreneurship in Practice*. Tehran: Aeezh.
- [23] Samadaghaei, J. (2009). *Entrepreneurial Organizations*. Tehran: Publications Center of training and public Administration.
- [24] Yadollahi, F. J. (2007). New role of university: *Developing entrepreneurship capability*, *Article Collection of First Conference Employment and Higher Education*. Tehran: Jahad daneshgahei organization.