The Development of Entrepreneurial Training: a Necessity in Iran’s Universities

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Abstract

Entrepreneurial training is formal and systematic education, aimed at utilizing information and knowledge exchange. Iran’s universities, in recent years, have created entrepreneurial training programs to build their students’ expertise in the entrepreneurship. The main intention of these programs is to encourage students to implement their learning in the workplace following graduation.

This study was implemented using post-event research methodology, with its key tool i.e. a questionnaire administered among Islamic Azad University students at the Lahijan, Iran campus. Data were collected in two steps, before and after an entrepreneurship program training during the last semester of the academic year 2011-12. Through the pair mean comparison test (t-test) and other analytical tools, our results demonstrate that variables such as level of significance for entrepreneurial intention (0.014), attitude toward behavior (0.005), subjective norms (0.032) and perceived behavioral control (0.009), all are less than 0.05. This reveals that entrepreneurship program is effective for entrepreneurial intention.

Keywords: entrepreneurial training, entrepreneurial intention, university students, attitude toward behavior, subjective norms, perceived behavioral control

Introduction

Entrepreneurship has led to economic growth, particularly in developed countries. Some contemporary authors speak to the power of the job creating economy. In addition, universities...
and other institutions of higher education play a dominant role in this new economic model (Nabi & Liñán, 2011, p. 325). As a result, developing countries such as Iran recognize that to achieve greater competitive advantages and address general societal problems such as unemployment, the development of entrepreneurship programs is essential. One of the key strategic zones for entrepreneurship development is the curriculum of institutions of higher education.

Furthermore, entrepreneurship training could be the most effective method to facilitate placing the graduate population into work market. Studies in this area have indicated that such training could identify responsible individuals and transform them into job creators, or confront risky individuals and create work challenges for them. Through such strategies, the unemployment rate as well as the rate of job placement failures has decreased (Urbano, Aponte & Toledano, 2008, p. 337).

In recent years, Iranian universities have delved into entrepreneurship training and tried to train students in methods of entrepreneurship role on students’ interest, Knowledge and skill create, develop and change the growing entrepreneurship training process, but the basic issue here is to evaluate these training methods.

Curriculum evaluation is the key dimension in any training framework. The criteria for evaluating entrepreneurship training could be related to certain knowledge, skills, interests, class participation and an evaluation of the student’s intention (Fayolle & Gailly, 2008, p. 577). The present research studies entrepreneurship training effects on Islamic Azad University students at the Lahijan, Iran campus.

**Literature and research historical review**

Entrepreneurship training has been introduced as a key tool to increase individuals’ entrepreneurship initiative. As a result, curriculum plans are growing, with a potential outcome of increasing the number of potential job creators emerging in societies (Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2011, p. 195). Furthermore, entrepreneurship training is a tool that policy makers believe could increase society's entrepreneurship level (Oosterbeek, Ijsselstein & Van Praag, 2010, p. 443) and has been recognized as an effective strategy for more innovation. In many countries, universities follow a wide spectrum of entrepreneurship curricula (Weber et al. 2009, 1). Peter Drucker is an effective thought leader in management, who represents that entrepreneurship, is not out of the ordinary, not mysterious. This knowledge is simply an orderly and coherent subject, unrelated to hereditary and congenital issues. It is a knowledge that could be learned as any other well-formulated science (Kuratko, 2005, p. 580). Therefore, today's entrepreneurship is recognized as a scientific course and like any such course has models, processes and space where its knowledge, interrelated with other fields, can be appreciated (Hodgetts & Kuratko, 2001, p. 30). Studies have indicated that knowledge and skills training in entrepreneurship have direct and positive effects on corporations. As the rate of growth in this field increases, it will lead to economic development as well as the quantitative and qualitative improvement of new job creators (Klofsten, 2000, p. 337-44). In the GEM
research program in 2008, entrepreneurship training was studied as a research subject, and the GEM conceptual model has served as an entrepreneurship cultural factor. Generally, this factor affects job creator interests, activities and appetite, and this affects new works developed within the economy (Bosma & Levie, 2009, p. 49). In addition, the entrepreneurship training effect on the job creator’s intention has been evaluated in the GEM program. In Iran, 50.8% of individuals who have entrepreneurship responsibilities have received voluntary entrepreneurship training. Furthermore, 46% have received forced training to run a job, while 32.9% have not received any training. Therefore, most individuals who have received voluntary entrepreneurship training have entrepreneurship responsibilities. Table 1 indicates this study’s results in Iran.

Table 1: Entrepreneurship training effect on job creator intention (GEM report, 2008)

<table>
<thead>
<tr>
<th>Description</th>
<th>Entrepreneurship expectation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Voluntary training</td>
<td>Forced training</td>
</tr>
<tr>
<td>Iran</td>
<td>50.8%</td>
<td>46.0%</td>
</tr>
<tr>
<td>GEM member Countries that are characterized by production factors</td>
<td>62.4%</td>
<td>55.9%</td>
</tr>
</tbody>
</table>

Developing an entrepreneurship curriculum on the one hand and increasing associated resources devoted to training on the other, we found a developing tendency among educational institutions to study this curriculum’s efficacy. The evaluation of entrepreneurship training efficacy is not limited to evaluating knowledge received in class. However, it should be part of the evaluation of the investment stimulus rate, successful companies’ running rates, the work creators’ increased ability rate, and the efficacy rate of students’ entrepreneurship intention (Graevenitz, DietmarHarhoffa & Weber, 2010, p. 91).

Entrepreneurship intention is a necessary prerequisite for entrepreneurship behaviors (Ajzen, 1991). In other words, before proceeding to entrepreneurship, a person should have this intent (Krueger, 1993, p. 5-21). To achieve entrepreneurship intention, different factors are effective. Since the 1980s, various countries have thoughtfully studied the different individual, social, economic and psychological factors and variables that affect entrepreneurship intention in individuals, and have introduced important models such as those of Shapero’s (1982) entrepreneurial event, Ajzen’s (1991, p. 179-211) theory of planned behavior, Krueger and Brazeal’s (1994) entrepreneurship potential model, and Krueger’s (2009) entrepreneurship intention model.

One of the best-known entrepreneurship intention theories is the theory of planned behavior, introduced by Ajzen in 1991. He believes that after conscious decisions, conscious behaviors
follow and occur in a certain way (Ajzen, 1991, p. 179-211). Based on programmed behavior theory, entrepreneurship intention indicates that a person attempts and then proceeds to exhibit entrepreneurship behavior in the future and so includes 3 stimulus factors affecting behavior:

- **Attitude toward behavior:** This refers to the individual’s positive or negative evaluating rate about being a job creator (Liñán & Chen 2009, p. 596). It emphasizes individuals’ attitudes, as well as autonomic, cognitive and sensory responses toward things, others, themselves and/or social issues (Nelson & Quick, 1999, p. 103). Attitudes have 3 basic features: (1) they are teachable and acquisitive, (2) they prepare an area in which performances can occur, and (3) such performances create desirable or undesirable tendencies toward others or things (Fishben & Ajzen, 1980).

- **Subjective norms:** These assess recognized social pressures about performing or not performing entrepreneurship behaviors. They especially refer to individuals’ accordant recognition and determination of whether or not to become a work creator (Liñán & Chen, 2009). This variable is affected by social factors such as cultural attitudes, and the attitudes of individuals, groups, and social webs, such as friends and coworkers (Zali, Razavi, Farsi & Kordnaiej, 2010, p. 59).

- **Perceived behavioral control:** This term refers to individual recognition about behavioral ease or difficulty and is defined as the degree of ease or difficulty perceived while working toward becoming a job creator. This factor is affected by experiences, predicted difficulties, and obstacles. This variable indicates the intensity of an individual’s belief about acting in a certain way. Therefore, it could be called self-belief or self-efficacy (Liñán & Chen, 2009).

Many studies have focused on the entrepreneurship intention area and entrepreneurship training. Some of these studies pertain to the study of the entrepreneurship curriculum’s effect on entrepreneurship intention. Table 2 is a compilation of study histories.

**Table 2: Summarizing past studies of entrepreneurship training effects on students’ entrepreneurship intention**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Year</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sánchez</td>
<td>2011</td>
<td>Study results regarding students in courses such as economics, social science, technology, law and hygiene in Spain. Findings indicated that self-belief and risk-taking led students’ learning, and their self-working intention increased after receiving an entrepreneurship curriculum.</td>
</tr>
<tr>
<td>Souitaris, Zerbinati and Al-Laham</td>
<td>2007</td>
<td>Study of British and French engineering and science students. It showed that subjective norms and entrepreneurship intention had certain differences in the first and last curriculum.</td>
</tr>
<tr>
<td>Wilson, Kickul and</td>
<td>2007</td>
<td>Study results of MBA students in four US states indicated that</td>
</tr>
</tbody>
</table>
entrepreneurship training plays an important role in rising self-efficacy and economic activity starting intention.

Study results of French students participating in an expert management course. It demonstrated that the entrepreneurship curriculum effect on students who had low entrepreneurship intention at first was positive, and that the impact was negative for those who had high intention at first.

This study introduced a model to test entrepreneurship intention among Massachusetts Institute of Technology (MIT) engineering students. Based on this model, risk-taking and the internal control center indirectly have a positive effect on students’ attitude. Furthermore, attitude also has a direct and positive effect on entrepreneurship intention. In addition, results reveal the existence of lower entrepreneurship intention among students of the universities of Munich and Vienna relative to those of MIT, reflecting the difference in entrepreneurship training among these universities.

This study reports the effects among student nurses of entrepreneurship opportunity detection training, and indicated that entrepreneurship intention after job opportunity detection curriculum lacked a meaningful difference with their behavior before the curriculum. Among 3 main factors to predict intention were only subjective norms that showed meaningful differences relative to the students’ behavior before experiencing the curriculum (Banadaki, 2011).

Study results pertaining to Tehran University graduate students, evaluating the effects of an M.A. entrepreneurship curriculum. The study examined 3 factors related to entrepreneurship intention, perceived possibility and perceived suitability in 2 steps, and showing that after the curriculum is established, students realized its suitability, but regardless did not perceive the possibility of an entrepreneurship intention (Banadaki, 2011).

Research in 12 countries—Bangladesh, China, the United States, Costa Rica, Egypt, Finland, France, Germany, Russia, Spain, Sudan and Ghana—utilizing the well-known and respected Ajzen intention model Theory of planned behavior (1991) demonstrated that in most entrepreneurship intention studies and planned behavior theory evaluations, verified that this model is able to predict entrepreneurship intention (Engle et al. 2010). The present study has also selected the Ajzen model (1991) as its base model and its means of evaluating the entrepreneurship course training effect in an arbitrary course for B.A. students. Furthermore, efforts to increase university students’ efficacy will concentrate on entrepreneurship intention and suggest the following hypotheses as the basis of a research literature study:
• **Hypothesis 1.** Entrepreneurship course training effects on students’ entrepreneurship intention.

• **Hypothesis 2.** Entrepreneurship course training effects on students’ attitudes toward behavior.

• **Hypothesis 3.** Entrepreneurship course training effects on students’ subjective norms.

• **Hypothesis 4.** Entrepreneurship course training effects on students behavioral control perception.

**Research Methodology**

This study's aim is practical and based on a data collecting method leading to descriptive research of a post-event type (cause: comparative). In such research, cause and effect (independent and dependent variable) in events after the study period and creating conditions is not the researcher’s responsibility. He/she simply knows the mentioned individuals and observes some of their characteristics or behavioral models.

Because the aims of an entrepreneurship curriculum are creating and encouraging potential job creators, the entrepreneurship intention is intended especially for students. Researchers of this subject have concentrated on student groups. In Iran, however, due to the arbitrariness of courses at the B.A. levels and lack of familiarity with and awareness of the subject’s importance, this course has only been introduced in a few universities. Undeniably, this causes limitations in the statistical selection of elements of society that could participate in this research. This research’s cohort was graduate students of Islamic Azad University who had arbitrarily selected an entrepreneurship course in the first semester of 1389-90/2010-11. Total statistical society mass is 90 students, of whom 56 were by simple random sampling according to Cochran’s formula. This study measurement tool is a questionnaire of 31 items (Liñán, Rodríguez-Cohard & Rueda-Cantuche, 2011). This questionnaire is translated into Farsi and has received necessary content reform. The entrepreneurship variable and variables such as tendency to behavior, subjective norms and behavioral control perception, are determinants of entrepreneurship intention according to the Ajzen model measure (1991), based on questions in the 7-point Likert scale framework. To evaluate the questionnaire’s stability, researchers used Cronbach’s alpha. Questionnaire stability was 93%, which was acceptable. Study data analysis was conducted using SPSS software and on two descriptive and alliterative statistical levels. The descriptive statistical levels used central criteria such as mean and alliterative statistical levels to test the hypothesis via a pairwise comparison test and a mean comparison test of two societies.

**Findings**

Findings are introduced in 2 parts, the respondents’ demographic description and hypothesis test.
Respondents’ demographic description
Summary of respondents’ individual characteristics shown in Table 3

Table 3: Respondents’ individual characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Classification</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>30</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>26</td>
<td>46</td>
</tr>
<tr>
<td>Age</td>
<td>Under 20</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>20-25</td>
<td>38</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Up to 25</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Father’s employment</td>
<td>Self-employed</td>
<td>16</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Officer</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Retired or unemployed</td>
<td>22</td>
<td>39</td>
</tr>
<tr>
<td>Mother’s employment</td>
<td>Self-employed or work creator</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Officer</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Retired, unemployed</td>
<td>50</td>
<td>89</td>
</tr>
</tbody>
</table>

Hypothesis test
Table 4 introduces entrepreneurship intention and determinants. We observe an increasing means of entrepreneurship intention, attitudes toward behavior, subjective norms and behavioral control perception after entrepreneurship training. Mean comparison t-test results in Table 4 indicate that the entrepreneurship intention’s meaningfulness level—0.014—is lower than 0.05. Therefore, it appears that students’ entrepreneurship intention before and after the entrepreneurship training has a meaningful difference because beginning and the end of Interval Confidence is positive, then, conclusion can be expressed as:
Table 4: Comparing entrepreneurship intention and its determinants before and after training

<table>
<thead>
<tr>
<th>Description</th>
<th>Variables’ mean</th>
<th>Attitude Toward Behavior</th>
<th>Subjective Norms</th>
<th>Perceived Behavioral Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entrepreneurship Intention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before training</td>
<td>3.65</td>
<td>4.78</td>
<td>4.36</td>
<td>4.23</td>
</tr>
<tr>
<td>After training</td>
<td>4.57</td>
<td>5.44</td>
<td>4.83</td>
<td>4.69</td>
</tr>
<tr>
<td>T-statistic</td>
<td>2.63</td>
<td>3.09</td>
<td>2.25</td>
<td>2.81</td>
</tr>
<tr>
<td>Meaningfulness level</td>
<td>0.014</td>
<td>0.005</td>
<td>0.032</td>
<td>0.009</td>
</tr>
</tbody>
</table>

$\mu_{\text{last semester}} - \mu_{\text{early semester}} > 0 \rightarrow \mu_{\text{ls}} > \mu_{\text{es}}$

In other words, the test group of students’ entrepreneurship intention mean in the last semester was greater than earlier in the semester. This means that entrepreneurship training effects on students’ entrepreneurship intention were positive, verifying study Hypothesis 1.

In addition, with regard to Table 4, observe that the pair t-test yielded a meaningfulness level on attitude toward behavior of 0.005, subjective norms of 0.032, and behavioral control perception of 0.009, are less than 0.05. Therefore, these variables before and after entrepreneurship training have a meaningful difference. Because the two confidence gap heads in this test were positive, we conclude that the students’ mean of attitude toward behavior, subjective norms and behavioral control perception in the last semester was greater than in the early semester. This means that the entrepreneurship training affects students’ attitudes toward behavior, subjective norms and behavioral control perception, and that Hypotheses 2, 3, and 4 are accepted.

**Discussion and Conclusion**

This study researched the entrepreneurship function and its impact on students’ entrepreneurship intention. This study also verified the effects of entrepreneurship training on variables such as entrepreneurship intention, attitudes toward behavior, subjective norms, and behavioral control perception. Studies by Sánchez (2011, p. 249), Türker and Selcuk (2008, p. 155), Souitaris, Zerbinati and Al-Laham (2007, p. 580), Wilson, Kickul and Marlino (2007, p. 402), and Luthje and Franke (2003, p. 140) aided in enabling us to determine a viable set of hypotheses. In particular, Fayolle, Gailly and Narjisse (2006, p. 519) verified the entrepreneurship training effect on students’ entrepreneurship intention. We did encounter
some students who had never participated in an entrepreneurship training class, but we found limited effects on students who did not pass an entrepreneurship course. Consequently, it was determined that the Fayolle, Gailly and Narjisse (2006) study provided additional verification of the present study’s results.

Moradi’s (2010) thesis results with nurse students showed that the test group’s entrepreneurship resolution subsequent to participating in the curriculum had no meaningful difference from behavior before experiencing it. According to Moradi, this results from the course’s capstone event being the students finding employment relevant to their education (Banadaki, 2011).

This study also verified the entrepreneurship training’s impact on attitudes toward behavior. Previous studies also tested this hypothesis. Fayolle and Gailly (2008) determined that entrepreneurship training plays an important role in increasing students’ positive attitude toward the behavior of those who did not pass entrepreneurship training.

However, this research obtained results different from those of Souitaris, Zerbinati and Al-Laham (2007), and found that students’ attitudes toward others’ behavior did not have a discernible difference when comparing the early and final curricula. This result occurs because attitudes are teachable (Fishbein & Ajzen, 1975, p. 6). In other countries, such training begins at the lower university levels, at even introductory levels, so this training could affect and change attitudes during the period before leaving the university. From this, we conclude that on-campus entrepreneurship training does not play a function for individuals who subsequently have been affected by entrepreneurship training.

In addition, entrepreneurship training affects the hypothesis related to students’ subjective norms as observed in this study. In Ajzen’s model (1991), subjective norms are known as the weakest model component but, despite this subject, entrepreneurship training affecting hypotheses has been tested in subsequent years and has been verified. The Souitaris, Zerbinati and Al-Laham (2007) study examines the entrepreneurship training effects on engineering and science students, and found that students’ subjective norms were different at early and final times in the curriculum. The study by Fayolle, Gailly and Narjisse (2006) also observed the entrepreneurship curriculum effect on the subjective norms of groups that did not pass training courses. The hypothesis on the entrepreneurship training effect’s subjective norms has been verified in this as well as in previous studies. The hypothesis that training also affects students’ behavioral control perception was verified in this and other studies. Sánchez (2011) demonstrated that the self-sufficiency trait increased in students after entrepreneurship curriculum, and that this induces in them a perception of possibility in the realm of entrepreneurship. Possibility perception indicates the individual’s efficacy perception level or the likelihood of the individual to conduct trade and work. This perception relates to Ajzen’s (1991) behavioral control variable. Wilson, Kickul and Marlino (2007) also introduced the concept that entrepreneurship training has an important role to play in increasing students’ self-efficacy level. The Fayolle, Gailly and Narjisse (2006) study also observed the
entrepreneurship training’s positive effect on the behavioral control of groups that did not participate in training periods.

Overall, it is quite apparent that the present study’s findings verify many prior studies’ hypotheses in terms of the effect that entrepreneurship training has on the individual’s entrepreneurship intention.

**Recommendations**

In light of our research results, it can be confidently stated that the development of entrepreneurship training is a necessity in Iran’s universities, and can play a meaningful role in the nation’s future economic development. The following practical recommendations are proposed.

Entrepreneurship training is a component in creating and re-enforcing the individual's entrepreneurship intention in universities. Consequently, higher education is responsible for paying more attention to these trainings programs, their regulation and supervision of training administration in universities.

As a science-based university course, entrepreneurship includes a collection of scientific and practical principles. In this respect, university administrators should develop the necessary policies to codify the entrepreneurship curriculum methods and content. This will aid in creating and re-enforcing students’ entrepreneurship intention.

At the date of this writing, Iran has both a high overall unemployment rate and a high unemployment rate among graduates. As a young nation, Iran naturally is experiencing an increasing demand from the public for higher education as well as a governmental need to address these employment challenges. Therefore, entrepreneurship training development has significant importance to our country. Consequently, entrepreneurship training is recommended as a required course in the curriculum in Iran’s institutions of higher education.

Researchers developing studies in this area know that it is necessary to assess the different factors and variables that function as modifier variables. They could affect the relationship between entrepreneurship training and individuals developing job creator commitments of their own. Whether considering education for individuals or certain groups such as students, the following steps are suggested:

- Specify the function model effect on the relationship between entrepreneurship training and intention.
- Specify the gender effect on the relationship between entrepreneurship training and intention.
- Specify the experience effect on the relationship between entrepreneurship training and intention.
• Specify social groups’ management and control experience on the relationship between entrepreneurship training and intention.
• Conduct comparative studies in different universities and/or international comparative studies.

References


