

Identifying factors affecting entrepreneurial intention in female students

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Abstract

Despite the increasing tendency of women toward entrepreneurship in recent decades, there are significant differences in entrepreneurial activity rates of women compared with male counterparts, especially in those with higher education; hence, it seems more critical than ever to focus on activities to promote entrepreneurship among this population group. Given the importance of entrepreneurial intention as the sole predictor of entrepreneurial behavior, the present research was aimed to identify the determinants of entrepreneurial intention in female students using the theory of planned behavior by Ajzen. The study was conducted on undergraduate and graduate students who were studying management in Allameh Tabatabai University in Iran. Data was analyzed using regression analysis and showed that among the studied factors, positive attitudes towards entrepreneurship had the greatest impact on intention. These result have significant implications for policy maker and entrepreneurship educator to promote women entrepreneurship.

Keywords: entrepreneurship, women entrepreneurship, intention, entrepreneurial intention

Introduction

In recent years women's tendency toward entrepreneurship has grown substantially in different parts of the world, including Iran. But based on recent studies such as GEM 2012 report, the proportion of women participating in entrepreneurial activities in various countries is still far

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from their male counterparts. Hence, despite the growing number of women-owned business and increase of initiatives and policies designed to promote women's entrepreneurship, the gender gap in entrepreneurship persist. Accordingly, it is assumed that there are some personal and inherent factors in women which hinder female entrepreneurship. For example there are some studies which suggest that female university students are less prone to start a business (Wang and Wong 2004). So identification of the positive or negative influencing factors, facilitates right and logical planning to strengthen entrepreneurial behavior of female students toward entrepreneurship (Henley 2005) and women entrepreneurship in general.

One of the key approaches to describe entrepreneurial behavior is the cognitive approach which is mainly focused on intention for planning to launch a business (Linan and Santos 2007). Hence, cognitive approach can be also used to study the hidden factors which hinder entrepreneurial activities among females. There are some studies suggesting that individuals' intention to become an entrepreneur can be a positive sign implying that the person is prone to involve in entrepreneurial activities in the future. Trying to understand the behavior associated with the intention provides a base for modeling and explaining why and how many entrepreneurs, including females, set up their businesses (Souitaris, Zerbinati and Al-Laham 2007). so the aim of this study was to identify the determinants of female intention-based behavior. Recognize these factors and their influence on female students intention provide a ground to develop educational programs and policies development to promote female entrepreneurship.

Theoretical Framework and Hypotheses Development

An offshoot of the new approach, which tries to explain entrepreneurial behavior, focuses on the stage before entrepreneurial decision and creation of new business (Davidsson 1995); its main focus is on individual's intention for the development and implementation of a defined behavior (Linan and Santos 2007). The concept of intention is defined as a state of mind which leads attentions, experiences, and actions toward a particular goal or path. Thus, intention is the factor guiding entrepreneurs toward goals (Degeorge 2008). From the perspective of Shook and Bratianu (2008), entrepreneurial intention represents the level of individual's desire to start a business and it is a conscious mental process that precedes the action and directs a person to start a new business. As previously stated, lower rates of female entrepreneurship might be traced back to some gender-related factors which affect their behaviors and to probe more in this filed it is needed to study some early influencing factors like intention. Entrepreneurial intention is the first step in the process of creating a business and it is an important prerequisite for the development of entrepreneurial behavior (Linan and Chen 2006) Hence the identification of the factors strengthening or weakening entrepreneurial intentions can increase the chance of formation of tendencies among females toward entrepreneurial behaviors.

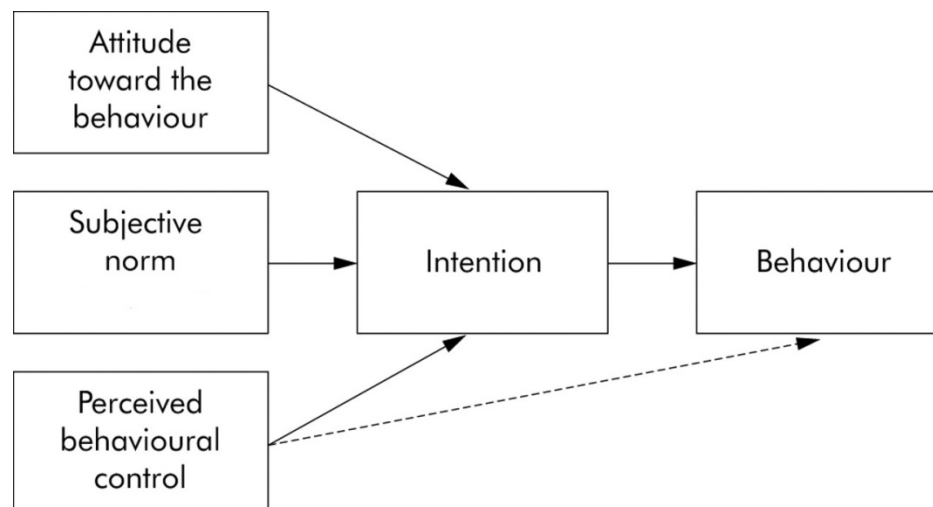
The theory of planned behavior, by Ajzen, is one of the most common psychological theories used to explain and predict human behavior (Kautonen, Tornikoski and Kibler 2009). A wide range of researches in the field of social sciences with topics such as ethical behavior (Flannery & May, 2000), behavioral risk aversion (Quinlan et al, 2006), or behavior in the Internet environment (Hsu & Chiu, 2000) and, most importantly, entrepreneurial behavior (Linan, 2008; Engel et al, 2008; Shook & Bratianu, 2008; Schwarz et al, 2009 Garcia & Moreno, 2010; Mahmud & Osman, 2010) have used the theory of planned behavior and the majority of them have proved the utility of the theory to predict behavior (Engel et al, 2008). This theory has

properly included the factors affecting the intention including needs, values, attitudes, habits, and beliefs which are a set of cognitive variables; moreover, it also includes situational factors such as the influence of other people (Linan and Chen 2006). Based on the above reasoning, this study was aimed to identify the determinants of entrepreneurial intentions in female students based on Ajzen's theory

According to the theory of planned behavior, there are three key factors influencing the formation of entrepreneurial intentions: attitude toward the behavior (here, attitude toward entrepreneurship), perceived behavioral control, and subjective norms. Figure 1 presents the theory of planned behavior model.

Figure 1

The Theory of Planned Behavior by Ajzen (1991)



Attitude toward the behavior: This aspect of the theory refers to the extent of positive or negative attitudes toward a given behavior (Degeorge 2008). People form their attitudes towards a behavior based on the likely outcomes of that behavior. If outcomes are going to be

very favorable, the related behavior will be stronger. In contrast, the likely unfavorable consequences weaken the intention (Shook and Bratianu 2008).

Subjective norms: It refers to the perceived social pressure to perform or not perform a behavior. In other words, it is a subjective perception of other people's opinions such as family, friends or other closed and effective individuals about a special behavior. This may stimulate a person to engage or not engage in a behavior (Souitaris et al 2007; Veciana 2005). Women are more affected, than men, by other people (Linan, Rodriguez and Rueda 2005), and apply others' views and values in their personal and professional life. A survey conducted by Mathew (2010) also showed that limitations in family and community and the lack of a role model, like female entrepreneurs, made entrepreneurial activity more difficult for women and suppressed women's motivation to enter the field of entrepreneurship so if women receive more social support, they are more likely to form stronger entrepreneurial intentions and behaviors (Casero and Ferreira 2009).

Perceived behavioral control: This refers to a person's perception of the ease or difficulty of performing the behavior of interest. perceived behavioral control is a personal belief in its own ability to perform a planned behavior and a perception about how much a behavior is within the control of individual's decisions (Basu and Virick 2008). The concept is very similar to the concept of self-efficacy, proposed by Bandura (1977) (Engel et al 2008). Self-efficacy not only strengthens entrepreneurial prerequisites to create a business (Dronvsek, Wincent and Cardon 2010), but also influences career choices and personal efficiency (Wilson, Kickul and Marlino 2007). People with higher levels of entrepreneurial self-efficacy show stronger entrepreneurial intentions, because they consider the business environment as a place full of opportunities (Naktiyok, Karabey and Gulluce 2009). Researchers have suggested gender

differences in entrepreneurial self-efficacy, so that entrepreneurial self-efficacy has higher impact on entrepreneurial orientation in women than men. It is more important for girls than boys, to have the perception that they possess entrepreneurial abilities or skills required for success (Wilson et al 2007). It is worth noting that, as women are usually less confident, they are more apt to select their career from a more limited number of choices (Bandura, 1992) and as they think they possess less skills, they avoid entering entrepreneurial activities.(Wilson et al 2007).

According to the theoretical model, the research hypotheses were formulated as follows:

1. Positive attitude toward entrepreneurship is positively associated with the intention to start a business.
2. Favorable perception of the environment and social norms is positively associated with entrepreneurial intention.
3. A deeper understanding of self-efficacy is positively associated with entrepreneurial intention.

Methods

This study was a cross sectional study which was conducted in Tehran, Iran, in 2012. Data were collected from a sample of undergraduate and graduate female students who were studying Public Administration, Business Administration, and Industrial Management in Faculty of Management and Accounting, Allameh Tabatabai University, in Tehran, Iran. According to the inclusion criteria we only enrolled students who were studying the mentioned courses, because those courses are generally and commonly assumed to have a close connection with businesses and the students might be business oriented. The total sample size was 246 and the

number of students in each group of Public Administration, Business Administration, and Industrial Management, respectively, was 112, 72, and 62 persons.

The survey instrument was based on scales constructed from previous studies. The variable of attitudes toward the behavior was measured using a scale developed by Krueger et al (2000); perceived behavioral control (entrepreneurial self-efficacy) was measured by Denoble et al's standard questionnaire (1999); and the variable of subjective norms was measured by six questions developed by Ajzen (1991) and Krueger et al (2000). The dependant variable of intention was measured using the items designed by Ajzen (1999).

The analytical part of the research was carried out using *multiple regression analysis* and the collected data were statistically tested using SPSS software version 15.

Data Analysis

In order to confirm or refute primary key hypotheses and the relationships between variables, first *correlation coefficient (Pearson)* was calculated, and the extent of the relationship between the dependent and independent variables was determined, and finally *multiple regression analysis* was used. According to the results of statistical tests, the variable of attitudes towards entrepreneurship, with the highest coefficient value (0.69) had the highest correlation with female entrepreneurial intention. The variables of perceived behavioral control (entrepreneurial self-efficacy) and subjective norms, respectively, with coefficient values of 0.63% and 0.40% were placed at the next positions. The calculated beta coefficient also confirmed that attitudes towards entrepreneurial intention had the greatest impact on behavior. The results of correlation coefficient calculation and regression analysis for the three independent variables are summarized below:

Table 1

The Result of Correlation Test and Regression Analysis of Variables

<i>Variable</i>	<i>error</i>	<i>Significance level</i>	<i>Correlation coefficient</i>	<i>Beta coefficient</i>	<i>Regression model</i>	<i>result</i>
Attitude toward entrepreneurship	.05	0.00	0.69	0.528	$Z4=7.32+0.168Z1$	Accept H1
Perceived behavioral control	.05	0.00	0.63	0.311	$Z4=1.49+0.135Z2$	Accept H1
Subjective norms	.05	0.00	0.4	0.233	$Z4=0.85+37Z3$	Accept H1
Final regression	$Z4(\text{entrepreneurial intention})= -13.976+ 0.129Z1(\text{Attitude toward behavior}) + 0.293Z2 (\text{entrepreneurial self-efficacy}) + 0.05Z3(\text{subjective norms})$					

Discussion and Conclusion

The main objective of this study was to identify factors influencing entrepreneurial intention of female students. The results of our study indicated that among the determinants of students' entrepreneurial intentions, which were assessed using the theory of planned behavior, the attitude toward the behavior had the strongest correlation with entrepreneurial intention and it had a stronger impact on intention, compared with the other two variables. A better understanding of these attitudes can be utilized for the development of related educational programs, because such attitudes, as the main basis for entrepreneurial intentions, can be taught and of modified over time and based on experiences. Hence, it is possible to change attitudes using relevant educational program to encourage students toward entrepreneurship (Nabi and Holden 2008) and affect the attitudes of young people toward entrepreneurship. successful policy making to foster entrepreneurship, can be met through understanding the target groups' features and attitudes(Wang and Wong 2004).

Regarding the results of the study entrepreneurial self-efficacy has almost the same importance as attitude toward entrepreneurship for female students. It seems that when women feel they possess abilities and skills required for success as an entrepreneur they are more apt to adopt an entrepreneurial behavior than men (Wilson et al 2007). According to Wang and Wong (2004) female students are not risk averse, but they do not have entrepreneurial knowledge and they are under the influence of social roles, hence they are less interested in entrepreneurship. As a result it is necessary to provide them with required knowledge and skills and make them more confident. Education can increase people's self-efficacy through present entrepreneurial knowledge and skills. Of course it is necessary to consider gender differences, while making policies and designing educational courses for entrepreneurship. If women face social events differently, they will perceive opportunities in a different way (Diaz- Garcia and Moreno 2010).

As a logical explanation for the weaker correlation between subjective norms and entrepreneurial intention, this factor may generate its impact indirectly via influencing the other two factors i.e. attitude towards entrepreneurship and self-efficacy (Linan et al 2005; Linan and Chen 2006). It is clear that in many communities the atmosphere is not supportive for female entrepreneurs and many people consider that many women lack the characteristics to enter in an entrepreneurial activity; hence it is necessary to provide some initiatives to make changes in social views toward females' abilities and characteristics. Such a change in views, can empower more women to start their entrepreneurial business. The above results can affect the training courses through modifying the two key factors influencing entrepreneurial intention, i.e. the attitude and self-efficacy on the one hand, and planning to strengthen social supports for women on the other hand. Despite numerous studies on gender roles in entrepreneurship in general and

specially entrepreneurial intention, this research with only focusing on female students seeking to encourage the promotion of women entrepreneurship.

It is recommended to conduct further researches on education courses and programs in universities to find out how many those programs are able to make a change in females' views toward entrepreneurship. Future studies should also focus on the entrepreneurial self-efficacy factors which can influence intention. It is necessary to investigate why entrepreneurial intentions usually do not lead to an entrepreneurial activity. Such studies can be conducted on female students who are studying in different fields, such as management, engineering, basic sciences, and social sciences.

References

Ajzen, Icek (1991). 'the Theory of Planned Behavior,' *Organizational Behavior and Decision Processing* , 50, 179-211.

Basu . A, and Virick. M (2008). 'Assessing entrepreneurial intentions amongst students: a comparative study,' paper presented at *National Collegiate Inventors and Innovators Alliance Conference*, Dallas.

Casero. C and, Ferreira. J; Hernandez. R and, Barata. M (2009). 'Influence of Institutional Environment on Entrepreneurial Intention: A Comparative Study of Two Countries University Students,' *International Entrepreneurship Management Journal*.

Davidsson, P (1995). 'Determinants of Entrepreneurial Intentions,' *Paper prepared for the RENT LX Workshop, Italy*.

DeGeorge, M (2008). 'Is Entrepreneurial Intention Stable Through Time? First Insight from A Sample of French Students,' *International Journal of Entrepreneurship and Small Business*,5(1).

De Noble AF and, Jung D, Ehrlich SB (1999). 'Entrepreneurial self-efficacy: the development of a measure and its relationship to entrepreneurial action,' In *Frontiers of Entrepreneurship Research*, Wellesley Babson College, MA.

Diaz-Garcia. C and, Jimenez-Moreno. J (2010). 'Entrepreneurial Intention: The Role Of Gender,' *International Entrepreneurship Management Journal*. 6, 261-283.

Drnovsek. M , Wincent. J and Cardon. M (2010). ' Entrepreneurial Self-Efficacy and Business Start-ups: Developing a Multi-Dimensional Definition,' *International Journal of Entrepreneurial Behavior and Research*,16(4), 329-348.

Engle. R., Dimitriadi. N , Gavidi. J , Schlaegel. C and et al (2008)" Entrepreneurial Intention A twelve-country evaluation of Ajzens model of planned behavior", *International Journal Of Entrepreneurial Behaviour&Research*,16(1), 35-57.

Franco, M. , Haase. H and Lautenschlager, A (2010). ' Students Entrepreneurial Intentions: an Inter-regional Comparison,' *Training&Education Journal*, 5(4), 260-275.

Henley, A(2005). 'From Entrepreneurial Aspiration to Business Start-Ups: Evidence from British Longitudinal Data,' *School of Business and Economics, Working paper SBE*.

Kautonen. T, Tronikoski. E and Kibler. E(2009). 'Entrepreneurial Intentions in The Third Age: The Impact of Perceived Age Norms,' *Small Business Economics*.37(2), 219-234

Krueger, N, Reilly, M and Carsrud, A (2000). 'Competing Models Of Entrepreneurial Intentions,' *Journal Of Business Venturing*. 15, 411-432.

Linan, F (2008). 'Skill And Value Perceptions: How Do They Affect Entrepreneurial Intention?,' *International Entrepreneurship Management Journal*, 4, 257-272.

Linan, F and Chen. Yi-Wen (2006). 'Testing The Entrepreneurial Intention Model On A Two-Country Sample'.

Linan. ,F, Rodriguez-Cohard.,J and Rueda-Cantuche , J (2005). 'Factors Affecting Entrepreneurial Intention Levels,', paper presented at *45th Congress Of The European Regional Science Association*, Amsterdam.

Linan, F and Santos, F (2007). 'Does Social Capital Affect Entrepreneurial Intentions?,' *International Atlantic Economic Society*, 13, 443-453.

Mahmud, Siti Nur and Osman, Kamisah. (2010). 'The Determinants of Recycling Intention Behavior among the Malaysian School Students: An Application of The Theory of Planned Behavior,' *Procedia Social and Behavioral Sciences*, 9 119-129

Nabi, G and Holden, R (2008). 'Introduction Graduate Entrepreneurship: Intention, Education and Training,' *Education and Training Journal*, 50(7), 545-551.

Naktiyok, A , Karabey, C and Gulluce, A(2009). ' Entrepreneurial Self-Efficacy and Entrepreneurial Intention: The Turkish Case,' *International Entrepreneurship Management Journal*, 6(4), 419-435.

Schwarz, E, Wdowiak, M and Almer-Jarz, D(2009). 'The Effects Of Attitudes And Perceived Environment Conditions On Students Entrepreneurial Intent: An Austrian Perspective,' *Journal of Education & Training*, 51(4).

Shook, C and Bratianu, C(2008). ' Entrepreneurial Intention in a Transitional Economy: an Application of The Theory of Planned Behavior to Romanian Student,' *International Entrepreneurship Management Journal*, 16, 231-247.

Souitaris, V, Zerbinati, S and Al-Laham, A(2007). 'Do Entrepreneurship Programmes Raise Entrepreneurial Intention of Science and Engineering Students? The Effects of Learning Inspiration and Resources,' *Journal of Business Venturing*. 22.566-591.

Veciana, J, Aponte, M and Urbano D(2005). 'University Students Attitudes Toward Entrepreneurship: A Two Countries Comparison,' *International Journal of Entrepreneurship and Management*, 1, 165-182.

Verheul, I, Van Stel, A and, Thurik, R (2004). 'Explaining Female and Male Entrepreneurship Across 29 Countries,' *EIM Business and Policy Research*.

Wang, C, K, and P.-K. Wong (2004). 'Entrepreneurial interest of university students in Singapore,' *Technovation*, 24(2),163-172.

Wilson, F, Kickul, J and Marlino, D (2007). 'Gender, Entrepreneurial Self-Efficacy and Entrepreneurial Career Intention: Implication for Entrepreneurship Education,' *Entrepreneurship Theory and Practice*, 387-406.