

Determinants of Students' Entrepreneurial Intentions: Evidence from Moroccan University

Mustapha Bachiri¹

¹ENSET, Mohammed V University of Rabat, Moroccan University, Morocco

Correspondence: Mustapha Bachiri, ENSET, Mohammed V University of Rabat, Moroccan University, Morocco.

E-mail: m.bachiri@um5s.net.ma

Received: June 27, 2016

Accepted: July 11, 2016

Online Published: September 29, 2016

doi:10.5539/ibr.v9n11p83

URL: <http://dx.doi.org/10.5539/ibr.v9n11p83>

Abstract

In recent decades, entrepreneurship has become a major economic and social phenomenon, a subject of research and a new field of education. While entrepreneurship is not a new concept, it regained importance particularly in scientific research. Entrepreneurship is seen as a vector for innovation and economic efficiency but also as a powerful job creator. Along with the evolution of entrepreneurship, there is a growing interest in the development of training programs to encourage entrepreneurship in universities. The challenge remains to find a consensus on the content to be taught and the type of learning to guide student behavior. Several empirical studies indicate that education can foster entrepreneurship. Yet the impact of entrepreneurship education programs on entrepreneurial skills and entrepreneurial values remains largely unexplored.

In this study, we used the theory of planned behavior to assess the impact of entrepreneurship education programs on entrepreneurial intentions in Moroccan universities, particularly the University of Rabat (Mohammed V University).

Keywords: entrepreneurship, entrepreneurship education, entrepreneurial intention, theory of planned behavior

1. Introduction

Entrepreneurship has become a major economic and social phenomenon, a subject of research and a field of education and teaching. In fact, the number of schools and universities that offer programs and courses in entrepreneurship is growing continuously. Entrepreneurship is not a new concept; it has regained importance especially in terms of scientific research over the past two decades. Today, entrepreneurship is seen as an important lever to face a new competitive environment.

Entrepreneurship is also seen as a vector for innovation and economic efficiency but also as a powerful job creator. Along with the changing field of entrepreneurship, there is a growing interest in the development of training programs to encourage and promote entrepreneurship. The challenge remains to find a consensus on the content to be taught and the type of learning to guide students' behavior. Several empirical studies indicate that education can foster entrepreneurship (Karimi & al., 2012). Yet the impact of entrepreneurship training programs on entrepreneurial skills and entrepreneurial values remains largely unexplored (Sánchez, 2010).

This study was based on the theory of planned behavior (Ajzen, 1991) to assess the impact of entrepreneurship education on entrepreneurial intentions of students in Moroccan universities, particularly the University of Rabat. Morocco has seen, over the last five years, a remarkable development of entrepreneurship training programs in several universities (Entrepreneurship training in bachelor and master degrees, ILO projects, etc.). Besides the development of entrepreneurship, these programs seek to provide a solution to an economic context marked by a relatively high unemployment rate among graduates of higher education in Morocco. This relatively recent experience in Morocco has led us to guide our academic research to study the impact of these programs on students' entrepreneurial intentions.

There are several models and theories that have attempted to explain the complex phenomenon of entrepreneurship. This study draws on the models described in the scientific literature relating to the theory of planned behavior (Ajzen, 1991). This model attempts to predict and explain individual behavior, in our case, creating a small business. We seek to examine the impact of entrepreneurship education on entrepreneurial intentions.

In the literature on social psychology, intentions are the best reflection of planned behavior. This is even more interesting while the target behavior is rare or difficult to observe (Ajzen, 1991). According to the theory of planned behavior, the study of intentions can be effective to predict the behavior of a person. The intentions are affected by exogenous factors guiding or moderating the relationship between intentions and behavior. These factors can therefore facilitate or hinder achievement of intentions.

As such, entrepreneurship is seen in some of the literature, as a typical example of intentional behavior. The entrepreneurial intention is defined as the determination to create a small business. Understanding these intentions is important because it identifies the main features of the new businesses (Krueger, 1993). These intentions can be influenced by entrepreneurship training programs.

Entrepreneurship education programs are considered strategic for the development of innovation and entrepreneurship. Yet the impact of these programs on business creation intentions remain largely ignored (von Graevenitz & al., 2010). Several experiments were carried out globally to promote entrepreneurial culture within the university. The university is called to participate more actively and directly to wealth creation while preserving its traditional teaching and research missions.

As such, the Moroccan experience is fairly recent. Several Moroccan universities, including the University of Rabat, have introduced courses on entrepreneurship (the company's operating principles, business plan development, business skills, etc.). The experiment is still in its infancy.

2. Literature Review

Identification of approaches to entrepreneurship helps to identify entrepreneurial intentions.

2.1 Different Approaches to Entrepreneurship

Recent contributions in research on entrepreneurship can be grouped into three main approaches (Filion, 1997).

2.1.1 The Functional Approach to Entrepreneurship

In this approach, the focus is on the effects of entrepreneurship and the role of the entrepreneur in the development of economic systems (Fayolle, 2002). Research at this level is oriented around three paradigms: the business opportunity, innovation and value creation.

This approach fits well in the Schumpeterian tradition which considers the entrepreneur as an agent of change and a central figure in economic development. Indeed, he takes risks to innovate, especially in realizing new productive combinations. The company is considered as a dynamic execution of new combinations. Therefore, entrepreneurship exists through the dynamic of innovation.

2.1.2 The Individual Approach

This approach focuses on the individual. It sought to establish the skills and personal characteristics of the entrepreneur by identifying personality traits and relying especially on the contributions of psychology.

In this approach several questions were asked:

- Who is the entrepreneur?
- Being entrepreneur, is it innate or acquired? (Gartner, 1989)
- Is there an entrepreneurial instinct?

Two trends have emerged from the debate: the first is that intrinsic characteristics of personality differentiate entrepreneurs from non-entrepreneurs (Gartner, 1985). The second based on behavioral science specifies that these features are meaningless. In fact, many individuals are likely to have entrepreneurial psychological characteristics but have never considered an entrepreneurial career.

This approach helps to explain a posteriori the choice of an entrepreneurial career but it is not able to accurately predict future entrepreneurial choices of an individual (Audet, 2001).

2.1.3 The Process Approach

This approach developed from 1990s, does not deal with the entrepreneur's personality traits but its activity is like a part of an entrepreneurial process. The entrepreneurial process designed as a systemic approach covers three fields (Schwartz, 1992):

- Express the ontological nature of the object;
- Understanding the evolution of systems and mechanisms;

- Act and evaluate the impact of the systemic approach on intervention in human, social and ecological systems (Moussa-Mouloungui, 2012).

Research related to this approach has focused on various topics related to entrepreneurship (family entrepreneurship, corporate recovery, female entrepreneurship, ethnic entrepreneurship, etc.). This research is based on four paradigms (Moussa-Mouloungui, 2012): the paradigm of firm creation, the paradigm of the business opportunity, the paradigm of value creation and innovation paradigm.

2.2 *The Entrepreneurial Intention*

In a procedural perspective, entrepreneurial intentions represent an important milestone in the business creation process. It predicts the act of undertaking would be likely to materialize. Entrepreneurial activities can be considered as such as intentional and planned as well as the choice of career in general (Krueger & al., 2000).

In general, career intentions are related to attitudes and perceptions, besides being learned by individuals over time (Krueger & al. 2000). Career choices are thus considered cognitive processes used by people to deal with knowledge, attitudes and beliefs (Lima & al. 2012). The entrepreneurial intention can be explained by the motivation of a person to perform business creation behavior.

Studies that have examined the factors that influence people in their preference or their choice of entrepreneurial career once were focused on demographic variables, personal and individual life contexts. Other studies have shown that personal and situational characteristics are not sufficient to predict entrepreneurial behavior, hence the importance of understanding entrepreneurial intentions (Krueger & al. 2000) which can be influenced by entrepreneurial education.

2.3 *The Role of Entrepreneurial Education in Entrepreneurial Behavior*

Entrepreneurship can be seen as the result of planned behavior.

2.3.1 Entrepreneurship, a Planned Behavior

Entrepreneurial behavior was analyzed in the literature as a result of personality and demographic characteristics. Intentional models have been proposed to predict entrepreneurial behavior. These models consider the intentions as an antecedent to entrepreneurial behavior.

The proposed model for entrepreneurship education is based on the Ajzen's theory of planned behavior (Ajzen, 1991). This theory represents a reference for a large part of research devoted to the study of intentional conduct. This theory has been applied to the prediction of a wide range of human behavior, including entrepreneurial intentions. Its interest is to explain that individual's behavior is not only the result of willingness. In other words, the behavior does not always refer to actions totally under the control of the will, but the actions are subject to interference from internal and external forces that influence its development. It explains and predicts how the cultural and social environment affects the behavior of the individual (Moussa-Mouloungui, 2012). This theory is based on the assumption of intent, seen as a result of three factors correlated:

- The attitude toward the behavior is a personal assessment of the degree of attraction or repulsion that the individual behavior towards which he aspires. It consists of the individual beliefs about the consequences of the realization of behavior.
- The perceived subjective standard is linked to social pressures on the individual by his closest entourage (family, friends, etc.) or the perception of what people important for the individual think about the realization of the target behavior.
- Perceived behavioral control is the belief of a person on the degree of difficulty or ease to perform the behavior. Evaluation of perceived behavioral control through self-monitoring aspects (motivation, etc.), cognitive processes (planning, self-assessment) and context of the development of the activity.

2.3.2 Entrepreneurial Process and Higher Education

To develop entrepreneurship among students, the university must help them to improve cognitive mechanisms on a business, and especially to dynamically act on the environment through the accompaniment. The intention of starting a business is, indeed, much stronger than the creation is seen as a desirable and feasible action. Several studies have used the theory of planned behavior in predicting and explaining entrepreneurial behavior in students' population. Research showed a close relationship between the intention of becoming an entrepreneur and the actual behavior (Moussa-Mouloungui, 2012). These intentions are in turn influenced by a number of "exogenous" factors including the educational process through the entrepreneurship education (Karimi & al. 2012). As such, pedagogy in higher education has increased gradually from a traditional logic of transmitting

knowledge, skills transferable to a training logic (teaching by objectives) and then to a logical active learning by developing skills to employability.

These three successive logics are distinguished by the missions and goals of the institution they put forward. These logics are based on different learning theories and epistemologies and different objectives and action strategies for teachers and students (Verzat, 2010).

Many universities in developed countries have opted for an active pedagogy in education: Harvard case method, problem-based learning or project-based teaching (Fayolle & al., 2009.).

Regarding the teaching of entrepreneurship, there are several educational approaches: development of business plans by students, development of entrepreneurship projects, supporting young entrepreneurs, computer simulations, case studies, etc. These courses are aimed primarily at increasing mastery of risk associated with the business plan by providing students transferable skills necessary for corporate control. This aims to develop the ability to define and carry out its own business within evolving social relations (Verzat, 2010). The student's success in the entrepreneurial process presupposes a change in the educational culture within the university. Entrepreneurship Learning programs are then called to evolve to integrate this dimension.

3. Methodology

In the present study, we sought to identify predictors of entrepreneurial intention among students, especially the impact of entrepreneurship training programs.

The population under study consists of 90 students of the University Diploma in Technology (DUT) from the Ecole Normale Supérieure de l'Enseignement Technique (College of Technical Education in Mohamed V University of Rabat, Morocco). They followed entrepreneurship courses during the 1st semester of the 2014/2015 academic year. We deliberately reduced the target population for reasons of homogeneity. Of the 90 questionnaires distributed, 65 were presented by the students, a return of over 72%.

The course was constructed as follows:

- Work on the professional project allowing students to move from a managerial logic to an entrepreneurial logic;
- A framework for writing a business plan and a reflection on the business model, strategic choices, etc.;
- Completion of all stages of small business creation;
- Work on business serious games ("GoVenture" small business);
- Work on personal development techniques (building trust, developing resilience, etc.).

3.1 Measurement of Entrepreneurial Intention

The entrepreneurial intentions can be measured either through behavioral intention ("I intend to perform a behavior x") or assigning a probability to perform a particular behavior. Statistical analysis shows that issues related to behavioral intention have a predictive power of higher behavior (Armitage & al., 2001). Therefore, we chose the first option by holding eight items to measure behavioral intention on a Likert scale.

3.2 Analysis of Predictors of Entrepreneurial Intention

Three variables were identified: attitude toward the behavior, subjective norm and perceived behavioral control.

3.2.1 Attitude towards Behavior

The attitude toward the behavior measures the perception of the person in respect of the proposed behavior, in this case the act of becoming an entrepreneur. This can be measured through the attractiveness of entrepreneurship as a career option.

Hypothesis 1: Attitude toward entrepreneurship is positively related to Moroccan university students' entrepreneurial intention.

3.2.2 Subjective Norm

The subjective norm measures perceptions of the student on what his relationship network would think if he decides to become an entrepreneur. This social and cultural pressure is a decisive factor in the opportunity to become an entrepreneur. According to Ajzen (1991), subjective norms can be measured using questions like "what do others think of this behavior?" (Linan & al., 2009).

Hypothesis 2: Subjective norms are positively related to Moroccan university students' entrepreneurial intention.

3.2.3 Perceived Behavioral Control

Perceived behavioral control represents the belief of individuals in their ability to achieve performance levels that can affect their lives. In the presented study, we considered that the ability of students to start a business depends primarily on techniques that have been taught, including the definition of entrepreneurial project and mastery of processes and practical skills needed to create a new business. Specific supervision was carried out to build business plans and to develop contacts with different partners (regional investment centers, banks, chambers of commerce, etc.).

Hypothesis 3: Perceived behavioural control is positively related to Moroccan university students' entrepreneurial intention.

4. Results

We selected 31 items that the questionnaire contains to explain the entrepreneurial intention of DUT students. Almost all was seized on Likert scales 7 points.

The model has four major variables we tried to explain through several items measured by 7-point scales.

Table 1. Structure for measuring the variable

| | Variable | Number of items |
|-----------------------|----------------------------------|-----------------|
| Dependent variable | Entrepreneurial intention | 8 items |
| Independent variables | Attitude toward entrepreneurship | 14 items |
| | Subjective norm | 5 items |
| | Perceived control | 4 items |

In order to verify the applicability of the model we chose to conduct a multiple regression analysis. This analysis will allow us to identify the degree of influence of each explanatory variable on the dependent variable 'Intention'. And for every variable measured by a significant number of items we reduced the number of items and combined them into a single factor restoring the majority of the total information. We used Principal Components Analysis to combine the items of each variable in the factors we will use in the regression analysis. The PCA results were as follows:

Table 2. PCA results

| Variables | Number of items | Number of factors | Cumulative variance | KMO |
|-------------------|-----------------|-------------------|---------------------|-------|
| Intention | 8 items | Two factors | 63.24% | 0.801 |
| Attitude | 14 items | One factor | 57.45% | 0.767 |
| Subjective norm | 5 items | One factor | 67.62% | 0.636 |
| Perceived control | 4 items | One factor | 43.14% | 0.811 |

Each factor restores a significant percentage of information that is considered satisfactory enough to draw reliable conclusions. The index of internal consistency between the items gives meaning to a height of 0.00 well below value to our error threshold of 0.05, so we can say that we have a very good quality and the released results are quite reliable.

After clearing the factors, we conduct a multiple regression analysis to explain the variable 'intention' by putting all interacting variables. This analysis will allow us to give an idea about the quality of representation of our model and identifying variables that exert a real influence on the dependent variable. It also allows us to identify each independent variable degree of influence by assigning a coefficient for each variable. The results were as follows:

Table 3. Coefficient of Determination

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1 | .707 | .499 | .468 | .71715201 |

The summary table of the model gives us an adjusted R Square value of 47%. While 53% is influenced by other factors.

Table 4. ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 24.612 | 3 | 8.204 | 15.951 | .000 ^b |
| | Residual | 24.687 | 48 | .514 | | |
| | Total | 49.299 | 51 | | | |

a. Dependent Variable: entrepreneurial intention

b. Predictors: (Constant), control behavior, subjective norms, attitudes

The ANOVA table shows that the model is significant with a significance value of 0.000. From this result we can

conclude that there are significant influence simultaneously between attitude, subjective norms and behavioral control on entrepreneurial intentions.

Table 5. Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| 1 (Constante) | -.028 | .100 | | -.276 | .784 |
| Attitude | .602 | .120 | .585 | 5.027 | .000 |
| subjective norms | .016 | .120 | .016 | .138 | .891 |
| behavioral control | .278 | .102 | .286 | 2.717 | .009 |

a. Dependent Variable: entrepreneurial intention

From table 5, we can identify two relationships with significant positive effect on entrepreneurial intentions, respectively, with coefficients 0.602 and 0.278. This result suggests that attitude and perceived control of behavior have each specific influence on the variable intention (H1 and H3). But the significance values obtained in subjective norm (H2) path coefficient (significance of 0.89) exceeds the value of the significance level of 0.05. Thus, subjective norm has no significant effect on entrepreneurial intentions.

It turns out that attitudes related to the student's behavior and perceptions of behavioral control are keys to explain the entrepreneurial intention. Their impact is positive and significant.

5. Discussion and Conclusion

Entrepreneurship is an important source of employment, innovation and economic growth in developing countries. Therefore, it is important to know how to develop new generation of entrepreneurs. One possible way is to know the factors that influence students' intention to become entrepreneurs. The aim of this study is to analyze the predictors of students' entrepreneurial intention. According to the Theory of Planned Behavior, human intentions, including entrepreneurial intentions, are influenced by three factors: the attitude toward the behavior, the subjective norms and the perceived behavioral control.

We found that, out of three hypotheses formulated, two have significant impact on entrepreneurial intention. First, the attitude toward entrepreneurship has a significant effect on students' intention to become an entrepreneur. In this study, the attitude toward entrepreneurship refers to the attractiveness of entrepreneurship as a career option. Secondly, perceived behavioral control is found to have a positive impact on students' entrepreneurial intention. Indeed, if students believe that it is easy to start a business, it will increase their intention to become entrepreneurs.

This study provides an analysis of the factors affecting student's entrepreneurial intentions. Universities should consider these factors to develop entrepreneurship education and to motivate students to become entrepreneurs. Entrepreneurship education must affect students' attitudes, behavior and, consequently, their entrepreneurial intentions. It allows, ultimately, creating employment and wealth. Therefore, educational support should address two aspects related to student behavior:

Improve attitudes associated with student behavior: A pedagogy focused on the construction of a coherent professional project based on the entrepreneurial logic may increase students' entrepreneurial intentions.

Provide students with tools to improve their behavioral control: university must move from a training logic to support logic. This should allow the student, on one hand, to master the business creation process and on the other, to master the risk that results.

Entrepreneurial culture that universities need to develop should highlight the personal characteristics of students and stimulate their desire to achieve and to take risks.

Furthermore, according to the results obtained, the impact of subjective or social norms remains negligible. This may seem paradoxical given that the relational network is crucial in the business creation process. Networking can provide information, counseling and possibly financial support during the transition to action.

Finally, the coefficient of determination of 0.468 suggests that part of the entrepreneurial intention is explained by other factors that have not been included in the model (business experience, funding, etc.).

Another challenge is launched to stakeholders, especially policy makers. They have to develop a strategy to convince students to become entrepreneurs (incubators, funding, etc.).

The limitation of this research is that it is only conducted in Rabat University. Further research will include other universities.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. [http://dx.doi.org/10.1016/0749-5978\(91\)90020-T](http://dx.doi.org/10.1016/0749-5978(91)90020-T)
- Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40, 471-499. <http://dx.doi.org/10.1348/014466601164939>
- Audet, J. (2001). Une étude des aspirations entrepreneuriales d'étudiants universitaires québécois : seront-ils des entrepreneurs demain ? *Cahiers de Recherche de l'Institut de Recherche sur les PME*, CR-01-13, Université du Québec.
- Fayolle, A. (2002). Du champ de l'entrepreneuriat à l'étude du processus entrepreneurial : quelques idées et pistes de recherche, *6^{ème} congrès international francophone sur la PME*, HEC, Montréal.
- Fayolle, A., & Verzat, C. (2009). Pédagogies actives et entrepreneuriat: quelle place dans nos enseignements ? *Revue de l'Entrepreneuriat*, 9(2).
- Filion, L. J. (1997). Le champ de l'entrepreneuriat : historique, évolution, tendances. *Revue Internationale PME*, 10(2), 129-172. <http://dx.doi.org/10.7202/1009026ar>
- Gartner, W. B. (1985). A framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10, 696-706.
- Gartner, W. B. (1989). Some suggestions for research on entrepreneurial traits and characteristics. *Entrepreneurship Theory and Practice*, 14(1), 27-38
- Karimi, S., Biemans, H., Lans, T., Mulder, M., & Chizari, M. (2012). The Role of Entrepreneurship Education in Developing Students' Entrepreneurial Intentions. *Proceedings of WICaNeM 2012, The 10th Wageningen International Conference on Chain and Network Science*, Wageningen University, Wageningen, Netherlands. <http://dx.doi.org/10.2139/ssrn.2152944>
- Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, 18(1), 5-21.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432. [http://dx.doi.org/10.1016/S0883-9026\(98\)00033-0](http://dx.doi.org/10.1016/S0883-9026(98)00033-0)
- Lima, E., Almeida-Lopes, R., Jorge-Nassif, V., & Da Silva, D. (2012). Intentions entrepreneuriales et opportunités d'amélioration de la formation universitaire: quoi faire au Brésil? *11^{ème} congrès international francophone sur la PME*, ESC Brest Bretagne, Brest.
- Linan, F., & Chen, Y. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33(3). <http://dx.doi.org/10.1111/j.1540-6520.2009.00318.x>
- Moussa-Mouloungui, A. (2012). *Processo di trasformazione dell'intenzione in azione imprenditoriale, Processus de transformation des intentions en actions entrepreneuriales*, Thèse de doctorat, UNIVERSITÀ DEGLI STUDI DI VERONA - Dipartimento di Pedagogia, Filosofia e Psicologia.
- Sánchez, J. C. (2010). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International Entrepreneurship and Management Journal*, 7(2), 239-254. <http://dx.doi.org/10.1007/s11365-010-0156-x>
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries, In Zanna, M. (Ed.), *Advances in experimental and social psychology*, 25, 1-65. Orlando, FL.: Academic Presse. [http://dx.doi.org/10.1016/S0065-2601\(08\)60281-6](http://dx.doi.org/10.1016/S0065-2601(08)60281-6)
- Verzat, C. (2010). *Pourquoi parler d'accompagnement des étudiants aujourd'hui ?* in *Accompagner des étudiants*, De Boeck Supérieur. <http://dx.doi.org/10.3917/dbu.rauce.2010.01.0025>
- Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behaviour & Organization*, 76(1), 90-112. <http://dx.doi.org/10.1016/j.jebo.2010.02.015>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).