



Entrepreneurship within University from Intention to Incubation: The Case of Algerian Universities

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Abstract: The integration of entrepreneurship education has changed the university's role by creating a bridge between university and industry. This combination also changed the structure of the university, its strategy, and the orientation of the outcome learning from traditional learning practice to entrepreneurial learning practice. The public university is facing now an internationalization environment, especially with the privatization of the higher education sector. In addressing this research gap, this paper provides a case study of Algerian public universities. The authors use a qualitative interview with teachers implicated in the process of integration of entrepreneurship from intention to incubation. Thus, the paper offers insights into how the university enables actors to address the challenge of internal factors and external factors to help and facilitate integration of entrepreneurship culture among university. Our contribution is to present a model of the integration of entrepreneurship education within the Algerian public university.

Keywords: *Entrepreneurial university; integration process; entrepreneurship education; internal actors; external actors*

Received: 18 September 2017; **Accepted:** 20 December 2017; **Published:** 12 February 2018

INTRODUCTION

The Algerian higher education system had introduced new reforms since 2004 (Benziane, 2004). These reforms included a different area in the modernization of education and training systems. Firstly, it aimed to achieve the adoption of the three cycle system (Bachelor Master Doctorate). Secondly, it tried to achieve the adaptation of curriculum program to the market need and the introduction of Quality Assurance. Thirdly, these reforms had enhanced the employability, along with personal and professional development of graduates throughout their careers by improving cooperation between employers, students, and higher education institutions. However, the Algerian Minister of higher education considers that these reforms could be achieved mainly through the development of programs and the insertion of internal structure that help increase innovation, entrepreneurial skills, and research of graduates. These reforms give to the Algerian universities the opportunity to explore and develop their role in the national innovation system (Rahali & Bendiabdellah, 2015). However, the higher education system is facing now new problems in the achievement of all these reforms. In this context, the government creates new structure dedicated to the promotion of innovation and entrepreneurial spirit within the Algerian universities. These institutional implications push the university to invest in the field of entrepreneurship education and the commercialization of their innovation. Our contribution is to present a model of the integration of entrepreneurship education within the Algerian public university. This paper aims to build a theoretical framework linking the internal actors and external factors in the process of integration of entrepreneurship culture among university. The authors use qualitative interviews with teachers implicated in the process of integration of entrepreneurship from intention to incubation.

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LITERATURE REVIEW

The relationship between entrepreneurship and university had been developed as a result of a collaborative work with the partners of the higher education system. Then, the university will be more responsible to diffuse knowledge in the greater way and in the appropriate need of industrial partners. University must assure the transfer of technology to their users at a low cost and create a competitive dynamic in the local, regional, and national innovation system. Entrepreneurship changed the vision, the culture, and the value of the university by making the university in the middle of the knowledge market. It became more important in producing and commercialization of knowledge. In the other way, it became a seller of services to the knowledge industry (Williams, 2003).

Moreover, the entrepreneurial university is based both on commercialisation “custom-made further education courses, consultancy services, and extension activities” and commoditization “patents, licensing or student-owned start-ups” (Jacob, Lundqvist, & Hellsmark, 2003). The university must ensure their responsibility in building a bridge to the industrial users of innovation. Indeed, the emergence of the entrepreneurial university was explained as a response to the increasing importance of the knowledge in national and regional innovation systems, and the recognition that the university is an effective and creative inventor and transfer agent of both knowledge and technology (Anggadwita & Dhewanto, 2016; Etzkowitz, Webster, Gebhardt, & Terra, 2000).

The literature defined the entrepreneurial universities were allowing new resources of funds like patents; research funded by contracts and entry into a partnership with private enterprises (Etzkowitz, 1983). This ability to find new resource fund is the first essential factor in the integration of the entrepreneurial vision within the university. The entrepreneurial university can be defined as the university which involved the creation of new business ventures by university professors, technicians, or students (Adora, 2017; Chrisman, Hynes, & Fraser, 1995).

As a second mission of the entrepreneurial university, the university must push their internal actors to discover the entrepreneurial adventure by creating new business ventures and contribute to the development of innovation in a competitive behaviour. Etzkowitz (2003) affirmed this mission by considering the entrepreneurial university as a natural incubator, providing support structures for teachers and students to initiate new ventures: intellectual, commercial, and conjoint. In this context, this university had the ability to innovate, recognize, and create opportunities, work in teams, take risks, and respond to the challenges (Kirby, 2002). Moreover, Clark (1998) considered that the entrepreneurial universities are those who seek to innovate in how it goes to business, to work out a substantial shift in organizational character, and to become stand-up universities that are significant actors in their own terms.

Nearly of all these characteristics, the entrepreneurial universities are those who generate technology advances and facilitate the technology diffusion process through intermediaries, such as Technology Transfer Offices (TTOs) as well as the creation of incubators or science parks producing support R&D for existing companies or to help jump-start new firms (Walshok & Shapiro, 2014). This university capitalised their technology transfer in a formal effort from research by bringing research outcomes to fruition as commercial ventures (Dill, 1995). Studies on the entrepreneurial university, however, usually focus on the mechanisms for the development of products, patents, and academic spin-offs (Dahlstrand, 2008) and characterised the relationship between the university and their business partnership as closer (Subotzky, 1999).

Of all these definitions, we adopt the definition given by Ropke (1998), who concluded that the entrepreneurial university was the meaning of three things: the university itself, the members of the university faculty, and the interaction of the university with the environment.

RESEARCH METHODOLOGY

According to Ropke (1998) definition, the introduction of entrepreneurship is developed by the interaction between the university and their environment. Therefore, university had to learn from their environment and explore all opportunities. At the same, time of the success of this relationship is conditioned by the ability of the university to achieve three important outcomes: Teaching, Research, and entrepreneurial activity.

Eventually, teaching entrepreneurship becomes more important since the first course was given in 1947 at Harvard University by Professor Myles Mace. This experience was generalized increasingly in all the United States Universities and Colleges. It might be argued that the introduction of entrepreneurship education was an individual initiative from the member of the university. This professor brought a new idea to the academic field which is teaching entrepreneurship. Besides this opportunity, other actors were implicated in the development of entrepreneurship education, for example, Center for entrepreneurship. From this American experience, the university learns to integrate the culture of innovation

and creativity. It appears that the primary origin of the integration process entrepreneurship was the awareness of entrepreneurial spirit. This awareness aimed to develop student's entrepreneurial intention, and create a new student entrepreneur generation (Dif, 2016).

Furthermore, research based on entrepreneurship education argues the importance of the entrepreneurial intention in the awareness the entrepreneurial spirit (Boissin, Chollet, & Emin, 2007, 2009; Boissin, Emin, & Herbert, 2007; Comfort & Bonaventure, 2012; Davidsson, 1995; Hynes, 1996; Izedonmi, 2010; Robert & Trang, 2013; Tounes, 2003).

In addition, the entrepreneurial intention is considered as a great tool to measure the impact of entrepreneurship education on and to evaluate the useful pedagogical practice in enhancing the entrepreneurial spirit (Fayolle & Gailly, 2009; Fayolle & Klandt, 2006; Fayolle, 2004; Verzat, 2015). In the case of the Algerian university, the integration of entrepreneurship education was the impulsion of the government to promote entrepreneurship and innovation within university (Dif, 2016; Lachachi, 2008).

This integration, as we define, is an internal process based on the internal actor's roles and the ability of university to enable them with the help of external actors to address the challenge of entrepreneurship and innovation culture (Figure 1).

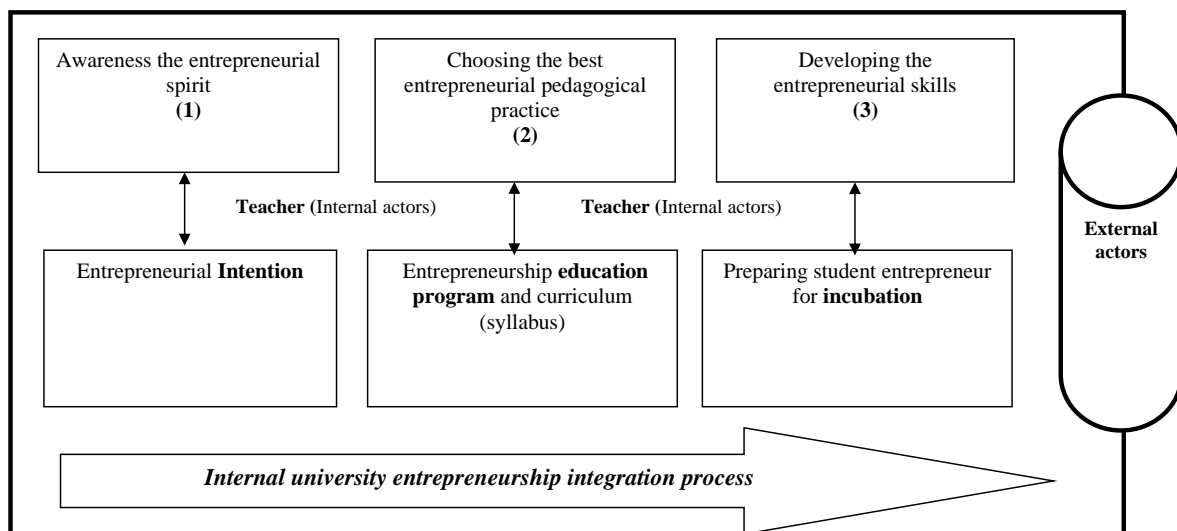


Figure 1 Conceptual Framework of the Study

Our research has explored three cases. The research involved a review of previous literature and the collection of in-depth case material through interviews with the teachers of entrepreneurship implicated in the university's integration process during 2016 and the first half of 2017. The three cases were selected on the basis that those teachers were involved in the following actions:

1. Awareness of the entrepreneurial spirit;
2. Choosing the best entrepreneurial pedagogical practice;
3. Developing the entrepreneurial skills.

The sample is regionally diverse as the universities are located in three different regions of Algeria. Therefore, the interviews were loosely structured on the three actions of the conceptual framework of the study and the literature review. Due to the confidentiality, the actual names of universities and the exact locations will not be given in the paper. The three cases are named Case 1, Case 2, and Case 3.

Three Cases Studies

Given the first objective of the paper, these three case studies will present the internal entrepreneurship integration process of the Algerian university. The case studies are presented below in order to describe three different universities and to understand the integration process.

Case 1: The aim of the teachers is to enhance student entrepreneurial spirit:

"...I believe in my students they can improve their entrepreneurial abilities. Our first mission is to give them the opportunity to enhance their entrepreneurial intention among entrepreneurial program. Then, we aim to help them in

the adventure of launching a new startup.”

Teachers affirm that since they were implicated, their students became more interested to discover entrepreneurship and they asked for more information.

Thus, for this first case, the implications of teachers were initiated by the faculty:

“...In our university, entrepreneurship as a program was the initiative of the faculty. In the beginning, the administration implicated teacher in the elaboration of the entrepreneurship education syllabus. The first mission was to discover the subject of entrepreneurship which is new and ambiguous. We organized many seminars and open day on entrepreneurship; we invited some entrepreneurs and experts of the field.”

The integration process had been started by allowing the teachers to propose and elaborate entrepreneurship program. The faculty, in collaboration with teachers, organized seminars and open day on entrepreneurship. These events were animated conjunctly with practitioners and entrepreneurs.

Their interpretation of the entrepreneurship integration process for those teachers was essentially based on stimulation of the entrepreneurial spirit:

“...For stimulating entrepreneurial spirit, we organize every month, an open day. The entrepreneurship house located at the university plays the role of facilitator; it gives information for all students present at the event. We aim to share more knowledge about the field of entrepreneurship within the academic community.”

Their experience was an excellent opportunity to share their knowledge with their students and learn from the external actors (entrepreneurs and experts involved). This case illustrates that the faculty is an important internal actor who gives to the teacher a great implication in facilitation of the entrepreneurship integration process.

Case 2: The aim of the teachers is to enhance students’ entrepreneurial spirit and to work deeply with the entrepreneurship house:

“Teaching entrepreneurship is a new field and students are interested ...I think we need more facilities and tools to attend the higher number of students. The enrollment’s student statistics delivered by the entrepreneurship house show that events on entrepreneurship attract more students every New Year.”

Teachers are more implicated and they tried to improve the internal integration process by offering their suggestions in order to devolve and facilitate the interaction between the entrepreneurship house and their students:

“...Statistics provided by the Entrepreneurship House show that the number of student enrolled in education increases annually and we should be proud of this fabulous evolution. We succeed to enhance a maximum of our student comparatively with other Algerian universities. We are more implicated in business plan competition and the national startup competition and we had made our network.”

In this second case, teachers are more involved and motivated. They use new pedagogical practice, e.g., startup competition and business plan competition. Also, those teachers are part of a network and they capitalized a large experience in enhancing entrepreneurial spirit. This network is an indicator of integration process made by the internal actors.

Case 3: The teachers are facilitators; one of them is a member of an international youth entrepreneurship association:

“Before teaching entrepreneurship, we should develop the students’ entrepreneurial intention; then implicate them to discover the entrepreneurship ability. Students must be able to decide for creating a new enterprise.”

Teachers offer their experience by animating conference and open day to discuss the subject of entrepreneur as a job. For this case, teachers were involved in the three actions of the conceptual framework of the study:

“We promote the entrepreneurial spirit by keeping awareness during all the year. We believe strongly on the effect of the actions of awareness on the students entrepreneurial intention. Our methodology is based on two approaches. The first is the experimental method; we give to our students the opportunity to learn in a real experience (competition). The second is the learning by doing method; they learn by making error and we correct for them. We bring entrepreneur and they were excited to discover the real life of an entrepreneur.”

In this third case, teachers choose their approaches and they are part of the integration process. Teachers make their experience in order to enhance their students. As facilitators, they learn from a real experience to bring the external actors (entrepreneurs) into the classroom.

Discussion of Finding

The objective of this paper, is to discover how the university enables actors to facilitate the process of integration of entrepreneurship culture among university. We have observed that the teachers are the main important actors in this

integration process. They are really involved and they believe in their work. Even some of them don't initiate offering entrepreneurship courses; they contribute truly. Despite of this observation, the teacher is the most important actor who can facilitate the internal process in collaboration with the faculty and the other external actors. Certainly, the entrepreneurial education can be defined as "something" that facilitates access to entrepreneurial practices. It concerns the "what to do?" and "how to make it happen by being personally involved" (Laukkanen, 2000, p. 26). According to the three cases, the third case is a good example of the role of the teachers in the integration process. As we saw, teacher can bring their experience and make a bridge with the other partners of the university.

CONCLUSION

This paper has been concerned with the interpretations and meaning that teachers are involved in the internal integration process of entrepreneurship within the university. Evaluating their impact is the first step in our conceptual framework. Limited by time and the availability of teachers, our case studies were done with a focus on the role of teacher in the internal integration process. In order to select them, we make sure that they were implicated at a minimum in one of the three following actions:

1. Awareness of the entrepreneurial spirit;
2. Choosing the best entrepreneurial pedagogical practice;
3. Developing the entrepreneurial skills.

Essentially, we were proudly grateful for their contribution. Through our analysis of the three cases, we have identified two ways of the internal entrepreneurial integration process: teacher as part of awareness teaching and teacher as a facilitator. Thus, we conclude that the teachers who succeed are those who make their own network. They bring their experience and knowledge into the university system. However, the lessons we draw from the case studies enable us to discover the role of teacher in the internal integration process and we should develop further research to evaluate the effect of each way of the internal integration process in a quantitative survey research project.

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