

The Entrepreneurial Universities, a new strategy for entrepreneurship: Tunisian Institution Case Study

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Résumé : L'université entrepreneuriale vise à promouvoir l'esprit d'entreprendre chez les étudiants, en les aidants à mettre en place leurs projets par le développement de nouvelles stratégies éducatives. Ainsi, nous avons essayé d'évaluer les nouvelles activités entrepreneuriales, à travers l'analyse des perceptions des étudiants. Nous avons donc choisi le Modèle d'encouragement des étudiants à l'entrepreneuriat de Jansen & al. (2015) et nous avons mené des entretiens auprès de 50 étudiants d'une institution d'informatique tunisienne. Les résultats ont prouvé que les étudiants adhèrent totalement au processus entrepreneurial. La plupart des dimensions ont été vérifiées et les répondants ont montré une attitude favorable vis-à-vis des activités de l'Université Entrepreneuriale, sauf pour la recherche de fonds financiers.

Mots clés : Université Entrepreneuriale, Education Entrepreneuriale, Modèle d'Encouragement à l'Entrepreneuriat des Etudiants

Abstract: Entrepreneurial University aims to promote entrepreneurial culture within students' mindset, commercialize their researches and help them set up their own projects. To do so, we tried to analyze the developed entrepreneurial strategies through a case study of a Tunisian university. In our research, we have adopted Jansen & al. (2015) Student Entrepreneurship Encouragement Model and conducted interviews with students from computing institute (50). Results have shown that students are totally adhering the entrepreneurial transformation process. Mainstream model's dimensions were verified, and students approved a favorable attitude vis-à-vis the Entrepreneurial University activities, except the one related to finding financial funds.

Key words: Entrepreneurial University, Entrepreneurship Education, Student Entrepreneurship Encouragement Model

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INTRODUCTION

Universities are considered as crucial partners in sustaining the economic growth via satisfying society needs in terms of innovation and technology (Walter & al., 2011). In this sense, they are forming future qualified graduates throughout the introduction of a business courses to raise students' awareness about self-employment and then create their new ventures or improve their professional skills. Therefore, there are challenges for the traditional university to accommodate socio-economic obligations all through new entrepreneurial strategy integration. That is why; a new concept has appeared during the previous period to support Entrepreneurship Education (EE), basically in terms of environment which is called the Entrepreneurial University (EU). In fact, as one of the principle economic growth and development engine (Diaconu & Duțu, 2015), EE was located in universities in order to develop an entrepreneurial spirit in the mindset of students in order to sensitize them about entrepreneurship interest and to initiate them to create new projects (Martin & al., 2012).

Since in all developed countries, EE has become compulsory in view of the need for business creation as an economic response. In our country too, it has become transverse to all study specialties and to private institutes as well as to the public. That is why, during the present work, we will try to examine the student perceptions about the new adopted entrepreneurial university strategies. Indeed, we will exploit Jansen & al. (2015) Student Entrepreneurship Encouragement Model that develops the main three objectives of an entrepreneurial university strategy: educate, stimulate, and incubate. In this direction, we have chosen a public institution that operates in a very rich technological and economic environment. This background is defined by global and local competition and by the pressures of the technological sector on universities. Therefore, there is a real need, to develop this entrepreneurship culture throughout the national system.

1. THEORETICAL BACKGROUND

1.1. ENTREPRENEURIAL UNIVERSITY (EU)

Although being aged about 20 years old, the entrepreneurial university concept was regarded as still in its infancy stage in developed countries and emerging in developing countries (Almeida & al., 2016; Etzkowitz, 2014; Aranha & Prado Garcia, 2014; Souitaris & al., 2007).

Forsman (2008) emphasized that EU is “*an organization with a flexible structure, competent leadership and management and where entrepreneurial culture is a key driving force*”. In this sense, Cavaller (2011) joined the same spirit of the EU, and sustained that it is an evolutionary model of the traditional university. Accordingly, this new paradigm considers a third mission, which consists on research commercialization added to the research and teaching functions (Etzkowitz, & al., 2000).

To achieve alike realizations, university should engage simultaneously most important stakeholders that are industries, government and society (Philpott & al., 2011). The latter cooperation is named the “Triple Helix Model” which involves academic-industry-government external relations intending on convergent politics and methods added to the “*internal transformation within each of these spheres*” (Etzkowitz, & Leydesdorff, 2000).

Consequently, to be qualified as entrepreneurial, universities should develop different strategies through a transformation process: “(1) *the university starts to define its priorities and diversify its income sources; (2) the institution starts commercializing the intellectual property that arises from its research activities; and (3) the university takes an active role in participating in its regional innovation environment.*” (Etzkowitz, 2015; Almeida & al., 2016).

Modern university should adapt environment fluctuation throughout “*internal transformations, such as through changes in governance, management, flexibility and leadership structure, in order to increase its flexibility, efficiency and effectiveness*” (Aranha & Prado Garcia, 2014). To do so, universities should set out more flexible structure, encompass entrepreneurial dimensions within its behavior as being proactive, risk taking when deciding to innovate or exploiting an opportunity, to utilize creatively their resources to attain its objectives (Diaconu & Duțu, 2015; Forsman, 2008).

To realize the previous goals, some entrepreneurial activities should be initiated (Almeida & al., 2016) within the university environments including, for instance, research mobilization, unconventionality, collaboration with industry, and university policies (Todorovic, 2011). In the same vein, Walter & al. (2011) added that students’ willingness to be entrepreneurs may be affected by various elements such as the institution EE program, university norms and quality.

In addition, the EU contributes in the technological development (Walter, 2011) throughout its association with its inside and outside environment; such as: University Spin-Off (USOs)

(Rasmussen & al., 2014; Walter & al., 2011), incubators (Jansen & al., 2015), Technology Transfer Offices (TTOs) (Krabel & Mueller, 2009; Phan & Siegel, 2006), entrepreneurship centers, and specifically university departments (Rasmussen & al., 2014; Diaconu & Duțu, 2015).

Subsequently, in order to be qualified as entrepreneurial through knowledge commercialization and business culture building, the university should first concentrate on its internal environment. That is why, we should found new educational strategies that stimulates students' entrepreneurial perceptions then help them incubate their projects. This is the main objective of our paper that will be treated in the next two paragraphs.

1.2. THE EU AS AN ORGANIZATION PROMOTING EE

Traditional EE was restricted to ordinary courses exhibition and has been developed gradually to be an entire program (Chen & al., 2012). This strategic program was qualified as interdisciplinary (Janssen & al., 2009; Rege Colet, 2002) that covers two sides. First, the precious disciplines complementarities to resolve one problem, called the *integration principle*; where institution would be qualified as *knowledge organization*. Second, the valued interactive collaboration that should interrelate students to each others, teachers between each other's and collaboration between student and teachers as for Luthje & Prug (2006) model. Rege Colet (2002) named the second type *the work organization* that is based on the *collaboration principle*. The author sustained that to talk about disciplinarity there is a great need to verify a balance between the two types of organizations and has placed an interdisciplinary index, which is the resulting ratios to assess EE interdisciplinarity.

In this sense, many authors have suggested multiple EE programs (Laviolette & Radu, 2009) and there was a great consensus on the fact that it should be composed of different levels mainly three (Mars & Garrison, 2009) or four (Sánchez, 2011).

In the Tunisian context, EE program had taken various names mainly Entrepreneurship culture. This program is constituted of three levels courses where the most modern are founded on the subsequent aims. The first one is dedicated to make students know about enterprising, entrepreneurship, entrepreneurs, sensitizing students about the interest of entrepreneurship and try to catch their attention about the subject. The second level is designed to develop how to identify project ideas and business opportunity, then the different levels of the feasibility study process. Next, the third one is intended to realize concrete business plan of identified ideas. The two first levels are planned for students of the second

license class where the third one is directed to those of the third license class (terminal class where they may adhere it as their license projects).

The mainstream problem of EE is the feeble number of graduate students that create new business after graduation, the loss of these unexploded competencies within industry specifically the entrepreneurial spirit. Thus, one of the major goal behind modernizing EE methodology, pedagogy... is to seek how enhance student to acquire an entrepreneurial spirit even to push them to realize what they have learned to set up new ventures (research commercialization), or translate this spirit to industry in order to make institutions more efficient (Rasmussen & Sørheim, 2006).

In fact, a doctor has to examine his patient, analyze the situation and diagnosis causes of pain in order to remediate it throughout the prescription of correspondent medicaments. The university as an organization should analyze the whole environment, try to diagnosis chief sources of problems and take necessary actions to remediate the situation and why not prevent what may make it more efficient. In this vein, Diaconu & Duțu (2015) for example reveled some difficulties that are related to new venture creation and as labeled them Gruber (2004) the liabilities of newness. These obstructions may have the shape of mainly the luck of financial resources, organizational and communicational skills, experience, business networks, industry ties, and therefore trust problem. In addition, within the university itself there can be a lack of favorable climate and the most necessary elements that authorizes students motivation to adhere alike behaviors.

About university, there is a great need to find a balance between what was learned in terms of knowledge and what is practiced (Landström & al., 2012). Otherwise, what is given to students throughout an EE course should be applied via case studies, simulations, clubs, workshops, prototype creation and why not incubation? In this vein, we are totally agreed with Jansen & al. (2015) contribution about Student Entrepreneurship Encouragement Model. In fact, through an interdisciplinary EE program and a supportive university environment, we can achieve the previous realizations: educate, stimulate, and incubate.

1.3. STUDENT ENTREPRENEURSHIP ENCOURAGEMENT MODEL (SEEM)

1.3.1. Educate

All through utilizing role models of educating entrepreneurship (Laviolette & Radu, 2009), then pitching up the need of entrepreneurship from a dual sides and its relative advantages (Martin & al., 2012; Kenney & Patton, 2011), we are teaching and also initiating students to

think about entrepreneurship. In fact, the first side is about the entrepreneurship necessity to the socio-economic development and the unemployment conjunction (Koea & al., 2012). The second one is about achieving individual realizations (Sawyer & al., 2011) via success stories for instance. Thus, it is a sensitizing and warning step about the interest of entrepreneurship. Yet, we have to note that our fundamental objectives here are education, informing students about the concept, but also it is of a great interest to catch student attention from the first time he/she learn about. Indeed, from the one side, there are students that are waiting for such courses because they were averted about such subjects previously. From another side, which presents the dominant case, students may be not too concerned with what the entrepreneurship teacher is offering. That is why Jansen & al. (2015) stated that it is the stage where we try to wake up potential entrepreneurs.

Accordingly, we have to underline the important role of entrepreneurship educator which plays a crucial element in the success of the EE course (Higgins & Elliott, 2011), otherwise the attainment of its objectives. In this sense, Chabrak & Craig (2011), for example, declared that students are influenced by their educators since they are seen as idols and coaches. Indeed, if learner will be convinced by the content of the subject and will be qualified as entrepreneurial when teaching, they will affect their students' perception and attitude about the concept.

1.3.2. Stimulate

All through the previous step, we should at once educate and stimulate. In fact, as educators, we have to raise the student's attention from the first meeting all through the introduction of the interest of entrepreneurship both to socio-economic and individual levels. The stimulation will be a process, which combines a set of actions based on a practical and interactive course (Ghazali & al., 2013). As regards, educators should adopt innovative pedagogical methods for searching valuable project idea, evaluating business opportunity and its feasibility study, conducting business model, finding finance sources and developing commercial skills. These goals are based on the integration of another course added to those related to management field which is the communication techniques that intend to develop their personality traits as the needed qualifications of a real entrepreneur. Accordingly, as an interdisciplinary program, EE program have to be set up on disciplines flexible integration, complementarily and learning by doing methods (Souitaris & al., 2007) in order to develop students entrepreneurial

talents and skills such as creativity, desirability, ability, innovation, propensity to take risks, and self confidence (Bagheri & Pihie, 2011; Jingxin Xue, 2012).

At the end of this stage, we, as educators or university stakeholders, can help students to prepare prototype to exercise concretely the idea. Therefore, there is a great need to build industry ties with the university to facilitate both the prototype realization and its commercialization. Otherwise doing so, industries are investing in R&D actions to get more efficiently relations and feedbacks (Prodan & Drnovsek, 2010; Walter et al., 2010).

1.3.3. Incubate

Once we have succeeded the first two EE objectives, we will try to move to the behavioural stage. Otherwise, we have arrived to generate an idea from the course of entrepreneurship, thus we have succeeded the first crucial challenge. The available powerful industry ties will help students (entrepreneurs) to be supported and assisted by professional in the subject. Accordingly, the EU and its stockholders will support the new project launch and try to assist students to do their best. Jansen & al., (2015) proposed several incubation activities: organizing business plan national and international competitions, offering work space, shadowing entrepreneurs and sharing ideas, developing networking, recommending mentors and funds, finally setting up accelerator programs.

2. METHODOLOGY

All along this work, we conducted qualitative research using the case study method as our purpose is trying to understand students' perceptions about their institution entrepreneurial activities. Therefore, we join the epistemological current of constructivism, since our concern is not results' generalization but more facts' understanding. This method is recommended in research where the theoretical framework has been clearly defined like ours and when it requires ground verification through an in-depth investigation. For this reason, it uses a variety of information-collecting techniques such as observations, interviews, documents (Lessard-Hébert & al., 1997). Thus, the case study research method is regarded as the more suitable (Jansen & al. 2015), as it offers a way to increase in-depth understanding in a complex environment (Yin, 2009), especially the case of universities that are not having the same framework nor using the same strategies.

We conducted semi-structured interview sessions with 50 graduate students who completed business plans as a final project, during the last six years in the institute in order to create their own enterprise. We supervised these students and helped them realizing their business

models, so we contacted them recently to accomplish this interview session. We based our interviews on Jansen & al. (2015) model so we realized an open discussion turning around the three themes: educate, stimulate and incubate. Consequently, this model helped us guide the debate and mainly, compile percentages related to students' perceptions about the entrepreneurial activities.

The second used technique is the direct observation and participation, as we are teachers within this institute, it allowed us to follow closely and understand some reactions of our students. The third technique is documentary analysis, through course materials, websites of universities, support centers and Ministry of Higher Education, as well as other formal documents collected during our visits to public structures Projects.

For the data analysis, we used a discursive method to see to which extent students perceive positively the three Stages of Jansen & al. (2015) SEEM.

The model include three main variables which are respectively: educate (3 activities), stimulate (5 activities), and incubate (7 activities) (see table N°1). These activities authorize students to assess their project success extent. They were evaluated using notation going from:

++ means the offering provides a positive contribution towards success.

+ means that the offering is helpful, but not essential.

- means that there was no support to success.

X means that there is no experience with the offering.

Studied case: To conduct our investigation, we have chosen an institution in the technological field, since there is a particular interest to business creation in this area, especially, startups. The Institute of Computer Science and Communication Technologies (ISITCOM), founded in 2001, focuses on academic training in the fields of telecommunication, multimedia and networks. It is located in Tunisia, in the region of Sousse. Its mission is to build a way between the theoretical work and the economic reality of Information Technology (IT) projects.

ISITCOM is a public university that receives financial support from the federal government. As a public university, the administration is under the responsibility of the Ministry of higher education and research.

Different sections and diploma exist in this institute: three years Degree in Networking, Multimedia or Telecommunication, National Engineer Diploma in Telecommunication,

Research Master in Distributed Computing, Professional Master in Security and Network Services, Professional Master in Web Services and Multimedia, finally a Phd in Computing.

In 2016, the institute registered 1176 students (797 students in license, 170 in engineering, 127 in masters and 82 in PhD).

For this growing institute, cooperation with government and firms is important to gain a better reputation within society and other universities. For example, the administration developed the Program of Support to Quality for Higher Education with the ministry assistance. In addition, ISITCOM Tunisia created a project-business space to: improve project monitoring (from definition to implementation), establish close and lasting relationships with companies, implement all the necessary means to carry out quality projects and improve the professionalism of students and facilitate their integration into the professional world. Consequently, we have found that it is a very interesting environment to conduct this investigation and that it is a favorable ground for the entrepreneurial spirit among young students.

3. RESULTS AND DISCUSSION

3.1. EDUCATION

During the three years degree, the Ministry of higher education fixed some transversal courses to all specialties in all universities, which aim to help student in their entrepreneurial and soft skills via the three levels of EE courses. As confirmed by 96% of the students (see Table 1), it is very positive and motivating to have various entrepreneurial courses through the three years of their studies (Albert & Marion, 1998).

3.1.1. Entrepreneurial culture course : first level

Since our sample was constituted of licence and engineer students that are ignorant about management field, the first level of the course aims to introduce concepts of enterprising and entrepreneurship regarding their role in the economic growth and development (Diaconu & Duțu, 2015) specifically in solving unemployment problem.

Results have shown that throughout this level, some students have recognized the business creation interest basically in terms of their contributions in the technology stream (Rasmussen & Sørheim, 2006; Walter 2011) and the relative huge value creation both to the entrepreneur him/her-self and his/her environment.

3.1.2. Entrepreneurial culture course : second level

Through this course, we targeted to develop two crucial levels of the entrepreneurial process: project idea identification and its feasibility study (Tan & Frank Ng, 2006; Ghazali & al., 2013; Souitaris & al., 2007; Chabrak & Craig, 2011; Fiet, 2000 b). After the presentation of the project's idea sources, the various launching opportunities and the basics of the creation process, in a teamwork, students must find cases of global companies known by their marketing strategies and discuss with young Tunisian entrepreneurs about their Marketing-Mix strategies. The aim of these plenary discussions is to familiarize the students with the strategic choices that are essential for the survival of the project and especially during the creation phase.

Most interviewed students agreed that the exploited interactive pedagogical methods based on brainstorming, teamwork, simulation, mind mapping, real case studies, success stories, pitching... were very attractive and beneficial (Fiet, 2000 b). They continued that they are very motivated to launch a new business and asked us as teachers for guidance to identify interesting ideas that goes with their specialization.

3.1.3. Entrepreneurial culture course : third level

During this semester, students, who have already acquired the theoretical basis of the creating-business process, must familiarize themselves with the feasibility study of the project. They work in small groups and have to choose a project idea to achieve the different commercial, technical, legal and financial studies. The ultimate goal is to present each project orally to the other groups at the end of the year; and thus, have feedbacks from all the projects and mainly decide the realization possibilities according to the chosen context.

All interviewees confirmed that conducting real researches in the classroom is very beneficial, especially exchanges between them and their teacher about crucial decisions for the survival of their project (Rege Colet, 2002). 96% of the interviewed students were very pleased with the experience of conducting a real business plan in class (Souitaris & al., 2007; Peltier & Scovotti, 2010; Fiet, 2000 b). So, they were unanimous concerning the richness of the ideas' sharing made with their classmates; "*We do not only realize our study but we end up acquiring and enriching our knowledge in several activity fields thanks to all the presentations made by our colleagues*". Therefore, the collaboration dimension of Rege Colet (2002), between both students and teachers, was verified and there was a balance between the knowledge and work organization.

In addition to those courses, we are providing other issues that complete students' communicational and organizational skills.

3.1.4. Communication techniques course: personal development

The communication course is divided into two main parts: written and oral expression techniques and personal development. Through practical exercises, role-plays and presentations, students understand the importance of soft skills in starting their professional life.

Speaking in public is based on self-confidence (Jingxin Xue, 2012; Fiet 2000), persuasion, time and stress management, information research and its relevant analysis. To convince a recruiter or an investor, skills such as punctuality, motivation and self-confidence are essential. That is what students have to acquire when following these exercises.

The learning by doing method has shown positive results as for Souitaris & al. (2007), (86% of the respondents). Moreover, real success stories have helped students appreciate their career as future entrepreneurs. Based on Jansen & al. (2015), *"the classroom is potentially the first place where students are made aware of the career option of entrepreneurship. Any university that aims to become an entrepreneurial university must provide a broad offering of courses for students"*.

This required the existence of qualified staff or teachers (Henry & al., 2005; Higgins & Elliott, 2011) which is a challenge for some universities since educators are regarded as examples, idols and coaches (Anne & Liisa, 2012). However, for our case, the existence of a qualified teaching staff in management, communication and entrepreneurship, and their collaboration has helped to better understand and better practice these methods as confirmed by 84% of the interviewees.

3.1.5. Know About Business

This course is addressed to the engineering level, through the last two years of their diploma. The purpose of the first level course is to deepen their knowledge about the business field and to have theoretical information about economic challenges, enterprise system running, management methods and project-creation steps. In the second level, after a description of the company life cycle and the stakes of competition, students are faced with concrete case studies, of strategy, change and crisis management (Fiet, 2000 b). The principle aim is to expose them more with the business context and above all to see and analyze the different growth and survival strategies of the company.

Many of the students said that it is a rich course, and a real training to their professional lives; when they debate about a multinational case or when they picture a new Tunisian case by themselves. They feel that they are closer to the business creation and more aware of management and decision-making problems.

Table 1. Students Entrepreneurship Encouragement Model Results

THEMES	RESPONSES REPARTITION					RESPONSES REPARTITION			
	++	+	X	-		++	+	X	-
Educate									
E1. Provide supportive staff and facilities	42	8	0	0	84%	16%	--	--	
E2. Highlight role models and success stories	43	7	0	0	86%	14%	--	--	
E3. Offer introductory entrepreneurship courses	48	2	0	0	96%	4%	--	--	
Stimulate									
S1. Support founding team formation	45	5	0	0	90%	10%	--	--	
S2. Provide mechanisms for idea validation	8	36	6	0	16%	72%	12%	--	
S3. Provide pitching opportunities	7	33	5	5	14%	66%	10%	10%	
S4. Support business plan creation	48	2	0	0	96%	4%	--	--	
S5. Enable prototype development	7	28	15	0	14%	56%	30%	--	
Incubate									
I1: Meet and work with other entrepreneurs	47	3	0	0	94%	6%	--	--	
I2: Provide office space	6	44	0	0	12%	88%	--	--	
I3: Offer mentoring to start-ups	0	45	5	0	--	90%	10%	--	
I4: Provide networking opportunities	46	4	0	0	92%	8%	--	--	
I5: Organize business plan competitions	48	2	0	0	96%	4%	--	--	
I6: Establish accelerator programs	9	26	15	0	18%	52%	30%	--	
I7: Provide funding	3	16	7	24	6%	32%	14%	48%	

3.2. STIMULATION

The purpose of the stimulation stage is to enhance students achieve their business project by transforming an idea into a complete business plan (Jansen & al., 2015). As we said through the last paragraph, in our institute, teachers guide their students to fulfil a project or at least work in small groups for an idea. The teamwork in classroom is a simulation of the entrepreneurial group creation (Souitaris & al., 2007; Fiet, 2000 b). Some of the interviewed students evoked group exercises for the Mix-Marketing presentation and role-plays for the strategic committees setting as being crucial to improve their communication and decision-making skills (Richardson & Haynes, 2008; Laviolette & Radu, 2009).

Thus, the teamwork dimension is essential in modern science and in entrepreneurship, since it affects the communication process (Almeida & al., 2016), offers a synergistic advantage and a very fruitful exchange between members. 90% of the respondents established positive and strong influence of the teamwork in enhancing their soft skills.

Although there is a little handicap for some of them in realizing a pitch, without feeling stressed. That is why, 66% find this technic to be helpful but not essential.

Beside the efforts made in the entrepreneurial course, we organize various information events and meetings throughout the year to stimulate reflection and research in the field of business creation. Students noted the testimony of young entrepreneurs and the solicitation of the public structures representatives to be a real source of opportunities. These are essentially the most important activities to stimulate students.

In our case, the interviewees affirmed that the courses are more like a project-building space. Some of them added that the success of this experience in class depend on the responsibility and the engagement of their teacher. One of the interviewees said, *“I love these moments, of sharing ideas, discussing and trying to convince my friends, it is more like a challenge, not a lesson. Yes, it is a real exercise of stimulation. I didn’t think about realizing a project when I first came to this university, but after these three years, I am sure about my decision to become a business man”*.

Therefore, we can confirm that stimuli can be proportional to the teacher’s effort in animating and conducting his students to discover their entrepreneurial orientations.

3.3. INCUBATION

The development of entrepreneurship is not only working to improve the content of courses, or achieving researches on new projects, but it is a complete process involving the triple helix continuously. This process includes universities that are responsive to socioeconomic and technological evolutions and focus on teaching as a source of new activities creation (Etzkowitz, 2014).

The interaction between universities and other organizations is crucial (Boardman & Corley, 2008) and becoming a strong and real need for students. In our context, there are several organizations, like public structures, that help students during the incubation phase. More than 92% of interviewees affirmed that these structures are an opportunity to meet other entrepreneurs, build a real entrepreneurial network and participate in many important business competitions. The single problem they have to face in their research is the financial and legal information’s, which are very difficult to understand. Nearly 50% said that they had no experience in finding financial funds (Peltier & Scovotti, 2010). Therefore, many of them face difficulties when they start their projects and sometimes run away from creating their business.

3.3.1. The entrepreneurial space

This space was a Tunisian-Belgian cooperation object and a part of the promotion of self-employment. The Entrepreneurial Space is available in every region and is aimed anyone with a qualification or professional experience who wishes to set up business on his or her own account.

In parallel to our institution, this space offers training to students and graduate ones called “*Business-creation and entrepreneurs Training*”. It gives the opportunity to consolidate the assistance of promoters during their different project-implementation phases from the idea to the stage of the actual installation, while guaranteeing the perpetuation of the activities and the jobs created. The Space is used to:

- follow individual and collective information sessions on the various funds, programs and institutions financing micro-enterprises as well as the encouragements and benefits,
- consult a rich and varied documentary base,
- acquire the culture of entrepreneurial spirit,
- identify and develop technical-economic studies of projects,
- track project funding with financing agencies,
- establish a contact network with government structures, enterprises and NGOs concerned with self-employment,
- help create an innovative project,
- also guarantee assistance in case of difficulties.

All students, who desire to create a project and become future entrepreneurs, have to achieve the training with this public space, in their final step degree, and it is a condition to have their diploma.

3.3.2. The Business Center

The center is joined to the Industry and Innovation Promotion Agency. This center carry out activities designed to facilitate the projects’ realization and to provide the necessary services to promoters for launching or developing their projects (Reitan, 1997), and in particular:

- Inform project promoters and investors on business start-up procedures, benefits and encouragements, on possible installation sites and on investment and partnership opportunities,

- Support the entrepreneurs in the various creation and implementation phases of their projects, in particular in the phase of preparing feasibility studies and finalizing the financing scheme,
- Make accessible to the promoters and investors offices equipped with communication means and provide them with basic services,
- Organize seminars for promoters and investors to inform them about the comparative advantages of the region.

This center works in collaboration with the university for every student who desires to create his own project.

3.3.3. The Enterprises Nursery

The incubation's nurseries are joined to the Industry and Innovation Promotion Agency and to the Ministry of industry. There are twenty-seven nurseries developed in all Tunisian regions, to help the incubation and creation of projects. Their purpose is to encourage innovation, training and accompaniment, expertise, hosting and networking. This organization is very active through universities all over the year, by organizing information and training sessions, especially, the Business Creation Training Program (Styhre & Lind, 2010; Walter & al., 2006; Wennberg & al., 2011).

In addition, it is helpful if:

- the young entrepreneur has a project idea, in industry or services related to industry,
- he needs support to develop this idea, to study it, or to formalize it,
- he requires a coaching to realize his business plan and obtain a bank financing,
- or he wants to understand the why and the how of his approach and to fit all the elements of the project realization.

As a result of the realized interviews, students have affirmed that the cooperation between EE course and these public organizations support them to concrete their business.

Finally, we can note that the majority of the model's dimensions were verified, and students approved favorable perceptions about Entrepreneurial University activities, apart from one single activity related to finding financial funds as shown in the table below (Table 2).

**Table 2. Students Entrepreneurship Encouragement Model perceptions
(Jansen & al., 2015)**

INTERVIEWEES PERCEPTIONS	++	+	X	-
Educate				
E1. Provide supportive staff and facilities	X			
E2. Highlight role models and success stories	X			
E3. Offer introductory entrepreneurship courses	X			
Stimulate				
S1. Support founding team formation	X			
S2. Provide mechanisms for idea validation		X		
S3. Provide pitching opportunities		X		
S4. Support business plan creation	X			
S5. Enable prototype development		X		
Incubate				
I1: Meet and work with other entrepreneurs	X			
I2: Provide office space		X		
I3: Offer mentoring to start-ups		X		
I4: Provide networking opportunities	X			
I5: Organize business plan competitions	X			
I6: Establish accelerator programs		X		
I7: Provide funding				X

4. DISCUSSION AND CONCLUSION

In conclusion, we have tried to deal in depth with the theme of entrepreneurial university, essentially referring to the model of encouragement to student entrepreneurship. This model begins with the phase of entrepreneurship education and involves two other imperative phases of student stimulation and project incubation. According to Jansen & al. (2015), the effort of institutions to develop this business spirit does not only depend on the courses taught, but rather on supplementary activities and other trainings to consolidate the theoretical achievements (Almeida & al., 2016; Souitaris & al., 2007; Walter & al., 2006) and to encourage the students to finalize their future project which depend on supportive environment.

So, our major contribution is related mainly to our willingness to deepen the understanding of the concept of entrepreneurial university. Thanks to the work of Jansen & al., (2015) on the Student Entrepreneurship Encouragement Model, we have shown that the so-called entrepreneurial university cannot focus only on the courses taught but rather engage stimulating and incubating actions by treating students as actors and future entrepreneurs (Souitaris & al., 2007; Etzkowitz, 2015).

Therefore, we have conducted a qualitative survey based on in-depth interviews that enabled us to understand the students' opinions overall system of entrepreneurship encouragement. We deeply think that this choice of a qualitative research is more significant than a quantitative method, as our purpose is better understand the perception of students about their universities.

As a result, we have found that the mainstream SEEM dimensions activities were verified, and students approved a favorable attitude vis-à-vis the Entrepreneurial University practices within our case, except one single activity related to finding financial funds. Therefore, we can locate our institute in the entrepreneurial transformation process of Etzkowitz (2015) (Almeida & al., 2016), in the third level which is in continuous progress.

Like every research, our study presents a number of limits. First deficit is related to the fact that our study was carried out in a single institution. Thus, the analysis by a mono-case is an attempt of comprehension but does not allow the generalization of the results.

Consequently, several future researches are possible; namely, expanding our sample, studying other cases, and trying to compare the degree to which this model of student entrepreneurship encouragement is applicable in different universities and in different contexts.

A second way of research is the need to have a different view of the university system, by conducting the survey with teachers of the entrepreneurial culture courses. Since they are the first supporters of the SEEM, they can guarantee the transmission of these entrepreneurial values through students convictions or present only a theoretical referential framework that does not involve transformations or stimulations on students' motivations.

Third, we have the possibility to use the Todorovik & al., (2011) scale that is founded on a quantitative research that can permit generalizing results. Our aim is to represent the logic of directors and heads of departments within Tunisian institutions and compare it with students' perceptions about the entrepreneurial university.

In a final perspective, all along our research, we have focused in the entrepreneurship education. This course is directly related to the entrepreneurial character of the university that we seek to achieve. However, we have not treated how other courses such as mathematics, computing, networking ... may be treated to be themselves entrepreneurial, and may contribute in entrepreneurial universities development.

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