

# **Impact of entrepreneurial programs on master's degree students at ISAAS considering the long-term perspective**

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## **Abstract**

The main objective of this research is to analyze the impact and effects of formal teaching of entrepreneurial programs on master's degree students at the High Institute of Business Administration of Sfax (ISAAS) in Tunisia considering the long-term perspective. The study focused on two main aspects of impact when considering:

- \* Entrepreneurial intention and profile of participants (Krueger et Brazeal, 1994 ; Krueger et al, 2000; Tounés, 2001);

- \* Life career of these participants by examining how they have transferred their knowledge to their professional work (according to literature on learning transfer, Phillips, 1997; Baldwin & Ford, 1988).

Empirically, the findings show that programs offered by Entrepreneurship's Professional Master (EPM) have a positive impact on entrepreneurial intention and profiles of participants. Then, entrepreneurship's master alumni how have find a job have transferred what they have learned on their works. Therefore, individual factors such as individual motivation and self-efficacy are the most stimulators of learning transfer. Finally, learning transfer has led to individual performance.

**Keywords:** Entrepreneurship training, Master's alumni, Transfer of learning, long term impact

## Introduction:

Given that entrepreneurship is the “*engine that drives the economy of most nations*” (Gorman et al, 1997), globalization underlined the need for an overall positive entrepreneurial climate and for framework conditions that facilitate and encourage entrepreneurship, and invited governments to introduce stronger measures, including higher entrepreneurship education.

Educating entrepreneurship is a key economic and societal challenge to which universities have much to contribute. The role that higher education institutions are currently playing through teaching entrepreneurship and transferring knowledge and innovation to trainees is very essential.

Tunisian government has been distinguished thinks to many economic and social performances. However, it faced a great problem of unemployment. In fact, the rate <sup>(1)</sup> of unemployment is very important despite public efforts to reduce this rate.

Stimulating entrepreneurship is one of recommended and appropriate solutions to solve this problem. So that Tunisia accords an important place to entrepreneurship especially in higher educative environments, which is considered fundamental to face global market's challenges by offering entrepreneurship courses to potential entrepreneurs. These efforts aimed to infusing entrepreneurial skills and behaviors among students.

The rise of the importance of entrepreneurial act was logically accompanied by a dramatic growth in entrepreneurship training. Hence, the question of the possibility of teaching and training for entrepreneurship has been widely discussed for several years, but, it is still relevant today.

However, numerous epistemological, theoretical, pedagogical and practice challenges remain. In fact, the development of these educational activities is not without reflection on their effectiveness. Efficiency is somewhere difficult to measure as revealed by Castagnos & Fayolle (2006) in a recent article dedicated to this subject.

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<sup>1</sup>The rate rises to 13.3% in 2009 according to INS, after the Tunisian revolution of 14 january2011; the actual rate exceeds 29% and 44.5% for graduates of higher education.

This research aims to clarify, in part, these questions. We will try to develop a conceptual model for evaluating the impact of entrepreneurship education at university. This research seeks to describe and explain the impact of entrepreneurship education on learners. The main idea of our research is to understand, firstly, the influence of training programs in entrepreneurship as part of the EPM on learners (profiles, intentions and behaviors), and secondly, to see if that impact has facilitated the transfer of knowledge from this training in their workplace and their working life in general. The central issue is formulated as the following: What is the impact of entrepreneurship training in ISAAS under the EPM on learners? How could they transfer what they learned in their professional life? And what are the factors that facilitated the transfer of their learning?

## **1. The entrepreneurship training in Tunisian universities**

The end of 90s was marked by several initiatives aimed at promoting entrepreneurship culture throughout the country and integrating it in the Tunisian education system (Aloulou, 2005; Taktak Kallel, 2005).

Tunisian authors have tried to evaluate the experience of Tunisian university in terms of entrepreneurship education. These include the work of Taktak Kallel, which was based on the experience of ESC Tunis; the author has attempted to suggest an evaluation method of teaching.

For his part, Aloulou (2005) has illustrated that appeal for entrepreneurship within the University of Tunisia: "*Entrepreneurship and enterprise creation is more than ever on the agenda in Tunisian universities and a preoccupation at the center to their strategic directions. The number of academic institutions offering a curriculum dedicated to entrepreneurship and enterprise creation increases from one year to another.*" According to Aloulou (2005), modules dedicated to entrepreneurship and enterprise creation were adopted in the second cycle of Tunisian higher education, whether in schools of management, engineering colleges, polytechnics or business schools: we find for example, as curricula: "Entrepreneurship and Leadership Skills" and "Creating Enterprises".

Specialized masters programs in entrepreneurship have been established in the University of Tunisia, for example: "Business Creation and Innovation Management" (CREMI) at El Manar University (ENIT), (January 2002); "Entrepreneurship" of ESC Tunis (2003); EPM ISAAS of Sfax (October 2004); Master Professional "entrepreneurship" in the ISG of Sousse (2004) with a program in collaboration with Management School of Grenoble and the pole of entrepreneurship at Paris Dauphine University.

The entrepreneurship module is widespread at the graduate level in every specialty. Recently, the professional master dedicated to entrepreneurship has been generalized over the thirteen Tunisian universities. All this proves the great interest given by the Tunisian university to entrepreneurship.

## **2-Various measures of impact of training and building the conceptual model**

### *2.1. "BEST" Report of the European Commission*

According to the "BEST" report of the European Commission (2009), it is possible to assess the long-term impact of entrepreneurial activities or programs like that in the short term, for example by seeking to establish the number of students/graduates participating in entrepreneurship curricula who become entrepreneurs.

However, the venture is one possible outcome of many of entrepreneurship training, assessment of the long-term impact should also take into account other indicators, such as entrepreneurial activities within an enterprise ("intrapreneurship") or the quality and level of employment.

According to the same report, it is important to coordinate research by combining short-term evaluations of school experiences, medium-term measures of changes in attitudes and intentions and long-term evaluations of the quality and level employment and net income on birth rates and business survival.

This evaluation would involve either by sending questionnaires to former participants in entrepreneurship programs to determine whether they have created their own business or if they are employees but use entrepreneurial skills acquired in their workplace.

The number of alumni have become entrepreneurs could be a good indicator, but still the problem of alumni database who are often incomplete or missing some useful information to contact them. This is exactly the case with this research.

### *2.2. The evaluating model by Donald Kirkpatrick (1959)*

In this model, we can identify four levels in the evaluation work:

- Reaction: reactions of participants at the end of the program;

- Learning: to what extent the learning objectives (knowledge, know-how, etc..) Were satisfied;
- Behavior: to what extent the training has it resulted in behavioral changes, specific behaviors;
- Results: monitoring the cost / benefit for the individual, firm or corporation.

Fayolle (2008) suggests about the possibility for researchers to apply this model to the evaluation of entrepreneurship training.

### *2.3 Evaluating EEP according to the research work of Fayolle and al.*

Fayolle et al. (2006) and Fayolle & Benoît (2009) have suggested a new methodology for evaluating entrepreneurship education programs (EEP) based on the theory of planned behavior. The authors described the evaluating of the impact of EEP in the short and long-term impact on the entrepreneurial intention (key indicator of measure) of students in specialized master. The results found showed that the positive effects of EEP are considered more important than prior entrepreneurial exposure of students was low or nonexistent.

For students who have been heavily exposed to entrepreneurship, prior to training, the results highlight the existence of significant counter effects.

### **3. The efficiency of training: The transfer of learning**

In this section, we discuss the question foundation of any job training which its effectiveness is. In other words, the degree to what has been learned during the EPM training is transferred to the workplace.

If we return to the Kirkpatrick model, we are interested here on the third and fourth level. This model is still an important reference of articulation of different types of studies conducted by practitioners and researchers in the scientific literature to understand the effects of training practices in organizations.

However, many researchers have focused instead on the question of learning, and few had treated the transfer and especially the transfer of prior training in the workplace. This latter type of transfer is one to which we are interested in this research. In fact, we will analyze and see how learners have transferred what they acquired in EPM on their workplace. How can we define the transfer of learning and what are the factors that influence it?

### 3.1. Defining transfer of learning

According to Wexley & Latham (1981), the transfer represents *"the degree to which participants apply the knowledge, skills and attitudes acquired in training in their work"*.

Baldwin & Ford (1988) have subsequently further refined this concept by defining the transfer as *« the generalization of skills or behaviors learned in the training program and the maintenance of those skills and behaviors over a specified period of time »*.

According to these authors, the “knowledge transfer” is a generalization in the work situation of behaviors learned in training for a long period.

### 3.2. Factors influencing the transfer of learning

Several variables can influence this transfer. We can distinguish three broad categories of variables that can influence the transfer of learning: individual variables, environmental variables and variables of work-related modalities of implementation of training (Baldwin & Ford, 1988).

#### 3.2.1. Individual variables

Individual characteristics of learners concern the skills and competencies prior to them, their motivation to learn and their personal characteristics such as success factors of knowledge transfer (Baldwin & Ford, 1988).

For example, the skills are well understood in training could not be maintained due to a lack of motivation of the individual. These characteristics are important, both to learning and retention of training content, but also, for the generalization and maintenance of learning in the work situation (Baldwin & Ford, 1988, Noe, 1986).

Devos et al. (2006) argue that *"the confidence of participants in their own ability to use their new skills under the influence they make when they return to the workplace."* They observed also that most participants have confidence in their ability to use their new skills and overcome obstacles that might prevent them, plus the transfer is high at three months after the end of training. This result is mainly based on perceived self-efficacy of Bandura possessed by the person.

Both authors added in a recent research that a person transfer and maintain new skills if:

- he/she feels able (finding there a sense of efficacy)
  - if he/she enjoys using the skills to transfer
  - If he/she achieves certain professional goals,
  - If it is important to the image of him(her)self
  - And if it is not too much effort for him(her)self.

Therefore, we can group individual variables into three groups: variables related to motivation, those of self-efficacy, and finally those of control and perceived support.

### 3.2.2. The environmental variables

Research and experience of practitioners confirm that the working environment of the learner exercises a significant influence on the transfer of learning (Tannenbaum & Yukl, 1992).

Three descriptive factors of the environment are particularly relevant according to (Laroche & Haccoun, 1999): opportunity to transfer, transfer climate and learning culture. The opportunity of transfer means the opportunity to perform tasks learned in training. The supervisor plays a critical role in creating this opportunity. Once the opportunity is offered, the learner will use the opportunity to transfer what he learned.

In an interesting study that examined the factors influencing the transfer of learning, Lim & Johnson (2002) found that the most important reason of high transfer among learners was the opportunity to use training in their work.

### 3.2.3. Variables in terms of performance of training

According to Fournier (2003), the modalities of implementation of training concern the development of educational conditions and opportunities for transfer of knowledge. Such as the principles of continuity and similarity between the training situation and the work or guidance or application forms alternating between school and work (Chaplin, 1993; Pineau, 1993 ).

According to this author, these training methods can also include the involvement of practitioners in training in terms of program design, to incorporate the essential elements of practice in the training content and in terms of the education, to establish a link with the concrete work situations.

## *3.3. Conceptual model and research hypotheses*



From the foregoing, we can formulate our research hypotheses as follows:

**H1:** Assuming that students registered in the Master have expressed their intention to learn to initiate and create businesses, the training has a positive effect on the profile and for students to undertake.

**H2:** The training has a positive effect on entrepreneurial project learners: that is to say, it leads them to realize their projects after a period of medium to long term (3 years).

**H3:** The training has an impact on the working lives of learners.

**H3 (a):** individual variables (motivation, self-efficacy) are factors that facilitate the transfer of learning training on their workplaces.

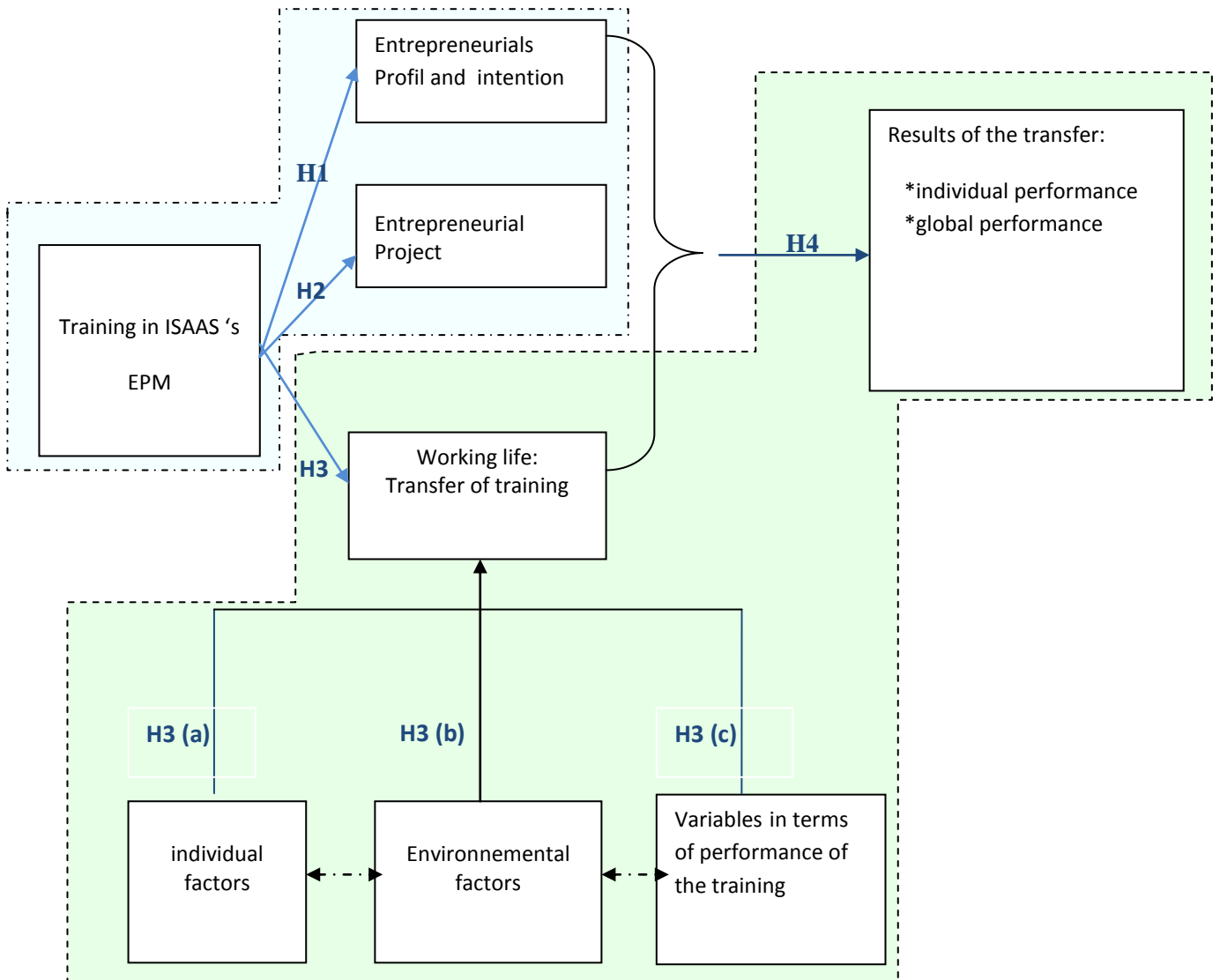
**H3 (b):** The working environment (culture, climate, and atmosphere) facilitates the transfer of training on professional lives of learners.

**H3 (c):** The procedures of conduct of the training (such as pedagogy adopted) and the general appreciation of the content of training are factors that explain the transfer of learning.

**H4:** the training generates individual (profile and entrepreneurial behavior) and global (organizational and social environment) performance of the learner.

On the next page, the conceptual model and assumptions of our research are presented.

**Figure 2: Conceptual model and research hypotheses**



## **4. Presentation of the methodology, the parent population and the sample**

### *4.1. Epistemological and methodological choices*

To build its research object, researcher must determine its position with respect to its epistemological problem and its field of inquiry.

In management science, the debate is still open between positivism, interpretivism and constructivism.

In the field of entrepreneurship, researchers more and more adopt an arranged epistemological position. Indeed, entrepreneurship is a diverse field of science as mentioned by Bruyat (1993. p163). For this reason, researchers generally opt for a developed paradigm (positivism, interpretivism or constructivism arranged).

In this study, we opt for an interpretive built paradigm since the researcher takes his distance from the field study to monitor, observe and understand the impact of entrepreneurship education as part of EPM's intentions, behaviors and entrepreneurial projects for learners. Furthermore, although the theory has given us some answers on this issue, but it is still insufficient to understand and build knowledge on this topic.

About our research methodology, we will pursue an abductive qualitative approach since we predefine a theoretical model of assessing the impact of training in entrepreneurship and then we will validate this model by an empirical study through a questionnaire designed and tested by instructions of Grawitz (1996). The qualitative logic is justified by the fact that we are interested in social facts (intentions, attitudes) not quantifiable.

### *4.2. Data collection procedure*

To contact learners, we appeal first to their files archived in the administration of ISAAS to retrieve their contact information. Nevertheless, the main difficulty consists on contacting former students because most of them changed their coordinates. Therefore, we

called those who were reachable on their mobile to correct their contact details and ask by what means they can respond to our questionnaire (postal, telephone, fax, email).

The number of the respondents is still restrict, reason that pushed us to look for other ways to contact the maximum number of learners. We tried also with the social networks of the Internet (Facebook, LinkedIn, and Twitter). However, this solution had not succeeded because these learners do not necessarily connect with their real names and surnames but use pseudonyms. So we have contacted only two learners through these networks.

Another solution that seemed evident to us was what is called the snowball phenomenon, it is to ask someone to give us details of their former colleagues of promotion, but the majority said they lost their contacts. Finally, we also have to opt for the distribution of questionnaires by some method of door-to-door to ensure personally that these questionnaires were given to the concerned person.

The response rate of about 22.93% was moderate compared to the one we expected achieve at the beginning of the study.

#### *4.3. Presentation of the EPM of ISAAS*

The EPM is training that support young students with project ideas, but how are very hesitant. They are young master's graduates who do not dare turn their ideas because of the hostility of the environment and / or lack of human and / or financial support. This training course is also open to young people who were unable to find project ideas, but who want to venture into entrepreneurial and are unable of find employment in traditional markets.

The training is spread over one year full-time and includes theoretical and practical aspects. It is designed to widen the skills of stakeholders and form the creation of new businesses / activities, business takeovers and other forms of entrepreneurship. It aims to provide future entrepreneurs with the basic knowledge of management and business management. Three possible trajectories to the end of the program: training future entrepreneurs (designers, buyers ...) or future experts in support of business creation (consultants, managers of support structures ...), or frames in multi-SMEs whose mission is of develop and sustain an activity. Some scholars of entrepreneurship as well as creative professionals (experts, consultants ...) ensure the training modules.

We have taken as samples allowed the past six promotions of this Master. This choice is justified by the fact that these students have properly followed all of the training both practical and theoretical aspect. Consequently, this sample will indicate the best evaluation work from this training.

#### *4.4. Presentation of the sample: socio-demographic data*

It is appropriate to specify the properties of the respondents' socio-demographic data we collected from the first part of the questionnaire. Thus, we describe the characteristics of respondents through the following variables: sex, age, qualifications obtained in the training, and employment status during follow-up of the EPM.

<b>Criteria</b>	<b>Results</b>
<b>sex</b>	The distribution by sex indicates that the sample is composed equally of men and women (respectively 57.4% and 42.6%).
<b>Average age</b>	The average age the most important in our sample is around the thirties, it represents 86.8% of our sample
<b>Diploma obtained upon entry into EPM</b>	31, 1% is from the finance and accounting sector approximately 27.9% obtained a Master of Business Administration. The rest is of alumni in economics or other.
<b>Professional situation of respondents over the EPM</b>	Almost half of respondents were unemployed. About a third was Employees in the private sector. 11.5% occupied positions in the public sector Only one respondent was his own employer.

## **5. EPM training and working lives of respondents**

### *5.1. Reasons for choosing the training EPM*

The reasons respondents to integrate training in EPM are multiple: their desires to acquire a good education in entrepreneurship and the spirit of enterprise and be able to implement and manage its own business are mainly two reasons mentioned (36.8 % and

28.7%). In lower frequencies, the students evoke two other reasons: lack of solutions to unemployment and expanding opportunities in the labor market.

This confirms our first hypothesis of research that it was supposed that students enrolled in master have expressed their intention to learn to initiate and create businesses.

### *5.2. Opinion toward the aspects of training*

► **General appreciation of the various modules of the EPM:** More than half (65.6%) of respondents appreciated the modules followed during their training in EPM. Only about 5% of respondents disagreed. This means that different modules followed by EPM have attracted the attention of the majority of learners.

► **Acquiring a Global Project Process:** 62.3% of respondents estimate that they have acquired through training EPM, an overall project approach and have become able to follow it when necessary. However, a sixth of the sample is in disagreement with the acquisition of this approach.

► **Training EPM helping to develop his own skills:** Approximately three quarters of respondents see that the training has contributed to develop their competencies. We can therefore a priori out its impact on learners. Almost all respondents (90%) disagree that training is of no value for them.

► **Respondents able to remember what they learned in EPM:** About one-tenth of respondents have forgotten most of what that they learned during their training in EPM. So even with time learners recall their training in EPM and especially for the first two promotions after a substantial period (5 years), the majority has not forgotten the modules taught.

► **Utility of training in current employment of respondent:** More than half of respondents consider the EPM training as helpful in their current jobs. A seventh sees it as unnecessary and about a quarter considers that was a little value.

### *5.3. Working life of respondents*

Almost half of respondents were unemployed when they entered into EPM. About a third was Employees in the private sector. With low propensities less, 11.5% occupied positions in the public sector and only one respondent was his own employer. The difference is notable after monitoring the EPM training. In fact, the percentage of unemployed has decreased by 31.1% and represent only one sixth of respondents.

The number of Employees in the private sector increased by more than half of the sample(55.7%). For cons, the frequency of the creators and teachers has remained low. So definitely, the EPM training has contributed to in improving the employment situation of learners and has reduced unemployment.

Concerning the type of functions occupied, more than half of respondents are executives in the private sector. 28.9% are senior managers or department heads. Only six respondents are officials and only one respondent works without a diploma (laborer). As for their tenure, the majority of respondents have tenure between 1 and 5 years, 10% are beginners and 17.9% have tenure of less than one year and finally 14.3% have a length upper than 5 years. Therefore, job tenure of respondents is not quite important.

## **6. Impact of training on the intention the profile and entrepreneurial project of the respondent**

### *6.1. Impact on the entrepreneurial intention*

Practically all respondents 91.8% have expressed their intention to become an entrepreneur. This confirms our first hypothesis that it was supposed that students enrolled in master have expressed their intention to learn to initiate and create businesses<sup>2</sup>.

Half of respondents consider that the idea to create is attractive, 5% very attractive and 37.7% rather attractive. This question refers to the theory of planned behavior of Ajzen (1991)

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<sup>2</sup> This hypothesis is subjective because we did not have enough information available and complete on their entrepreneurial intention to respondents at the time when their integration into the MPE.

explains the entrepreneurial intention based on the attitude toward the behavior. The latter represents the attractiveness of the behavior that (dis)favor the decision to start a business.

We queried later if the project is part of entrepreneurial projects current professional referees. The replies were equal frequency. So we can see that the entrepreneurial intention expressed by the learners do not necessarily mean that they are considering to implement their entrepreneurial projects. It's the difference between the desirability and feasibility of the behavior. Besides being desirable, the act of creation must also be reasonably practicable.

We also wanted to know whether learners are able to create or acquire a business. 90% responded that they are able. This high rate confirms that they really could gain, through training in EPM, a project approach, able to apply it when necessary. Concerning the desire of entrepreneurial project, 50.8% of respondents have a strong desire for achievement, by 37% have a moderate desire and only a 10% have a low desire for achievement. This proves the great importance they attach toward their entrepreneurial project.

## *6.2. Impact of training on the entrepreneurial profile*

To explore the impact of training on the entrepreneurial profile, we was inspired by a study conducted by Gasse (2000) trying to distinguish the key entrepreneurial characteristics. Thus, we could establish a table of the main characteristics of the entrepreneurial profile of learners. After a principal component analysis, we obtained five axes grouping the various aspects of the impact.

<b>Axes</b>	<b>Impact of the training</b>
<b>Axis 1: Entrepreneurial attitudes</b>	<ul style="list-style-type: none"> <li>- On the entrepreneurial motivation:               <ul style="list-style-type: none"> <li>♣ looking for independence and freedom.</li> <li>♣ Be willing to organize and mobilize resources.</li> </ul> </li> <li>- on the entrepreneurial attitude:               <ul style="list-style-type: none"> <li>♣ feel able to take initiatives and manage the unexpected</li> <li>♣ feel efficient and performing in the tasks performed</li> <li>♣ feel able to apply the learning outcomes at the right time</li> <li>♣ have control and the ability to overcome the constraints of work</li> </ul> </li> </ul>
<b>Axis2: Entrepreneurial Project</b>	<ul style="list-style-type: none"> <li>- On the entrepreneurial motivation: the search for adventure and challenging projects.</li> </ul>



<b>approach</b>	<ul style="list-style-type: none"> <li>- on the motivation to initiate or enable the project</li> <li>- on looking for an idea and market information</li> <li>- the feeling of being captivated and profoundly engaged in the project</li> <li>- the fact of having a global project procedure.</li> </ul>
<b>Axis 3: Entrepreneurial ability</b>	<ul style="list-style-type: none"> <li>-on the entrepreneurial attitude: to feel supported by his entourage to be more efficient in his work.</li> <li>- the entrepreneurial ability: <ul style="list-style-type: none"> <li>♣ The perseverance and determination</li> <li>♣ manage stress</li> </ul> </li> </ul>
<b>Axis 4: Communication and relationship skills</b>	<ul style="list-style-type: none"> <li>on the entrepreneurial ability: <ul style="list-style-type: none"> <li>♣ integration into the workplace and society</li> <li>♣ interpersonal and communication skills</li> <li>♣ Learn to cooperate and have the spirit of the group</li> <li>♣ adequately represent its environment and adapt to its environment</li> </ul> </li> </ul>
<b>axis 5: Having a good reputation</b>	<ul style="list-style-type: none"> <li>the entrepreneurial motivation: <ul style="list-style-type: none"> <li>♣ be recognized and good reputation in its workplace</li> <li>♣ have the desire to be an authority in his field</li> </ul> </li> </ul>

### *6.3. Impact of training on the entrepreneurial project*

We wished to know if the training has helped individuals to have a specific business project. The majority of respondents, more than 40% said that they have a project but not yet quite clear. By cons, 14.8% have a very clear entrepreneurial project completed or under construction. 27.9% of learners are still thoughtful about the subject and 16.4% have no specific project to achieve. The project idea emerged after the EPM Entrepreneurial Training for the majority representing 78% of respondents. However, it has developed during training for 13% of respondents, while only 9% had the idea before training. One can notice the impact of training in the birth of the idea of the entrepreneurial project.

Concerning the time of implementation of the project, about a tenth thinks they have realized over a very short time: less than a year. 30% of respondents consider it done between one and less than 3 years. The majority chose a period between three and five years. This confirms one of our hypotheses of research that "the training takes students to complete their projects after lasted more than medium and long term (3 years). This also confirms the

majority of research showing that the time realization of entrepreneurial project of learners is frequently in a period of between 3 and 5 years.

We wanted to know if the acquisition of a total project procedure makes the respondent able to create or acquire a business. To do this, we conducted the following cross-table:

**Cross tab capability of respondent to create or acquire a business \* acquiring a global project approach**

		acquiring a global Project approach					total
		completely disagree	disagree	slightly agree	Rather agree	Completely agree	
respondent's capability to create or take over a business	completely unable						
	rather unable			2			2
	moderately able		1	1	2		4
	able		2	6	10	1	19
	rather able		3	1	8	6	20
	completely able	2	2	3	4	6	15
total		2	8	13	24	13	60

► **Spearman Correlation:**

		acquiring a global project approach	capability to create or take over a business
Spearman Rho	acquiring a global project approach	Correlation coefficient Sig.(bilateral) N	1.000 0.054 61
	capability to create or take over a business	Correlation coefficient Sig.(bilateral) N	0.250 0.054 60

The two variables are independent according to the Spearman test (sig 0.54 > significance level), so the fact that the respondent may have had a total project process through training in EPM makes him more able to create or acquire a business.

**7. Transfer of learning on the working lives of respondents**

Learners were asked if they were able to apply what they learned during their training in EPM. 65% of respondents were able to apply their learning in EPM training on their workplaces. This rate is important because we used to investigate the transfer of learning on the professional lives of respondents.

The achievements of EPM training were mainly exploited in various fields. First, the majority of respondents highlighted the relational and communication skill: for them, through this training, they feel more able to communicate with others and inserted into different professional backgrounds. Secondly, many of them agree on the acquisition of a project process allowing them to apply it in guiding future promoters. Furthermore, the different theoretical modules taken during the training have been used in their management process of enterprises in which they work including fair marketing, management, finance...

Concerning those in the field of education, they were able to transfer what they have learned to their students and this through various modules taught at the university such as "entrepreneurship", "entrepreneurial culture", "the management of enterprises". We can say that training in EPM is very useful in the current professional situation of interviewees. This utility is most evident for those working in the private sector since the latter constituted mainly of SMEs, offers more chance to transfer the acquired training in the workplace.

### *7.1. Factors that influence the transfer of learning*

We grouped the factors that facilitate the transfer into three groups according to the literature devoted to this subject: individual factors, environmental factors and factors related to the modalities of implementation of training.

#### *7.1.1. Individual factors*

As shown in the following table, the most important factor facilitating the transfer of learning is the motivation of the learner to use new skills. This is already verified in the literature studying this issue of transfer (Baldwin and Ford, 1988; Lim & Johnson, 2002). With a rate nearest, comes looking to achieve certain career goals and in less low frequencies appears self-efficacy and the fact that application of knowledge acquired does not represent a major effort for the learner.

	Never	A little	moderately	frequently	A lot	<i>Total</i>
Its personal motivation to learn and use new skills		2	8	18	<b>34</b>	61
Self-efficacy to maintain and transfer the		4	6	<b>22</b>	19	61

skills acquired during the training						
Looking for achieving some career goals	1	4	7	23	<b>25</b>	61
The fact that the application of Training Outcomes is not representing too much effort	3	12	9	<b>23</b>	14	61

The self-efficacy to maintain and use the skills learned in training has prompted the learner to take the initiative to apply what he learned in his work.

### 7.1.2. Environmental factors

These factors have also facilitated the transfer of learning but not in the degree of importance than the individual factors: all respondents believe that these factors have often helped to apply what they learned in EPM. The opportunity offered by the work of executing the tasks learned in training is the most important environmental factor. But with a rate nearest a little less low added support from colleagues or superiors and climate work.

### 7.1.3. Factors related to the modalities of implementation of training (global assessment of training)

More than 70% of respondents think their overall appreciation of the training has facilitated the transfer of their learning in the workplace. The overall assessment of training means the implication during the course of the training as well as appreciation of the pedagogy adopted, previously anything is confirmed in our questionnaire in the part related to the global assessment of response toward the training.

## 7.2. Test reliability and correlations between factors facilitating transfer

Reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardized elements	Number of items
,781	,792	8

The reliability test shows that this scale is homogeneous. Indeed, the characteristics of internal consistency shows that the value of  $\alpha$  is equal to 0.781. The quality of the reliability coefficient provides information on satisfaction of the criterion of internal consistency of individual factors facilitating the transfer.

Concerning the correlation matrix of factors that facilitated the transfer, it has revealed strong correlations between different factors. Indeed, a strong correlation between motivation to use the skills acquired in training and self-efficacy that is equal to 0.775 and significant at 1%. We can interpret this correlation through the definition of the two concepts, if we recall the definition of self-efficacy of Bandura (1986, 1997), as the trial that an individual carries on his ability to organize and execute a task required to meet specified performance, then we can say that the more someone feels able to control the learning before starting a course, the more it will make apprenticeships. The more one feels then able to apply what he learned, the more it will transfer their learning.

So if we consider the personal motivation as the one that will determine the effort with which the learner will try to apply in his work what they learned in training, so we can see that the two concepts are complementary. Furthermore, the correlation between research professionals to achieve certain goals and self-efficacy is equal to 0.634 and significant at 1%. This relationship can be explained by the fact that when the learner feels he can transfer his apprenticeships in his place of work, then it motivates him to look better to achieve certain professional goals.

Another high correlation of 0.734 between two environmental variables facilitating the transfer: the climate of work and the opportunity offered by the work of the tasks learned in training for these two concepts are similar. This correlation is evident as the climate of work includes the opportunities offered by work. Finally, the correlation between the environmental factor "labor climate" and the individual factor research to achieve certain career goals is equal to 0.309, but significant at 5%.

## 8. Identification of some cases of business creation

We are presenting a few cases of creations identified in our research. The survey revealed six cases of creation. To examine them closely, we made use of the telephone

interviews with the creators to get the maximum of information. Finally, we could not do interviews only with two entrepreneurs because of the unavailability of the other creators.

Project	Sector of activity	Amount of investment in TND
Dressmaking shop	Industry	between 5000 and 10000
Shop	commerce	between 1000 and 5000
Production of food flavors	Industry	More than 10000
General Service buildings	Service	More than 10000
Perfumery	Commerce	between 1000 and 5000
Painting	service	between 1000 and 5000

Established enterprises are all small businesses, including two services, two industrial and two commercial. Three have a total investment not exceeding the 5000 TD, one with a value between 5000 and 10000DT and both having a significant amount of investment exceeds the 10000 DT.

It should be noted that we had a case of recovery of activity: that of a shop selling clothes. Its promoter activity has taken over his father and tried to improve his business by employing two traders and skilled in applying, on his part, skills acquired during his academic training. Concerning the second designer, his idea is quite simple, drawing a regular seasonal work to do during the holidays as a student. Its activity, in fact, is to ensure the paint rooms and buildings. He hired a dozen qualified painters, he seeks building sites under construction and it is with the contractor's work on a convention designed to protect the painting from the estate. His initial investment was not huge (5000 DT) and earnings are important. In his view, the MEP training made him learn many things about the world of creation and the project approach that has gained him has facilitated the creation and management of its own business and he was helping to identify opportunities existing on the market. Recently, he took advantage of the Tunisian revolution of January 14, 2011 to target large surfaces burned in order to repaint. So he Secure an important market.

## Conclusion

The choice of our subject was a real challenge: in fact, assess the long-term impact of entrepreneurship education is not an easy given the complexity of the evaluation work as revealed Fayolle and Castagnos (2006). In addition, the act of contacting former graduates of the ISAAS's EPM was another challenge because any initiatives have been taken previously to assess the efficiency of this master. We were obliged to resort our interviewees in a way to collect some information related to the "hot" evaluation training. If such information existed, then they would facilitate and improve the assessment of long-term. The evaluation of training is obviously a process that must begin from the start of training until a later period away from its completion.

However, we were able to achieve interesting results measurable of the impact of this training on the profile, and for the entrepreneurial project and the professional lives of learners. Although our questionnaire was the most important way leading to these results but also the literature review helped us a lot better to investigate the different fields of study. That's why we started this research by the theoretical part, which had presented the main models related to the evaluation of training including that of Kirkpatrick (1959) and also the research work devoted to transfer of learning on the workplace such as the work of Baldwin and Ford (1988) and Devos et al. (2006). Finally, our study could identify a positive impact on intention, profile and entrepreneurial project learners and a quite significant transfer in their professional lives.

The value of this subject is twice. In fact, it can help, firstly, to gain more in research and the advancement of knowledge in entrepreneurship, and secondly, it responds to a significant social demand. In terms of research and the advancement of knowledge in entrepreneurship, first, the question of studying the long-term impact of training on entrepreneurial intention and entrepreneurial profile, project and professional life of learners is almost absent in recent researches in the field of entrepreneurship. We attempt to provide some answers to this question little discussed. Then it is interested at a population of learners (covering a significant initial sample: 356 graduates) trained in EPM and could manifest an entrepreneurial potential. Finally, our work has enriched the literature of research on entrepreneurship education in Tunisia.

In terms of social demand, this research may be relevant for many stakeholders: teachers of entrepreneurship by encouraging them to think about their teaching methods and improve the quality of their teaching and adapt to the expectations of their public ; politicians by inviting them to set orders of priority in their policies to promote entrepreneurship, students themselves will be assessed according to their entrepreneurial potential, and not only by purely academic conventional criteria, decision makers of the university by proposing to evaluate the performance of their education policy for entrepreneurship and to take remedial action if necessary.

This research has presented some theoretical and empirical limits. At the theoretical level, addressing the topic of evaluating the impact of entrepreneurship education in a long-term is a challenge. Indeed, almost all the work devoted to this subject has focused on a short-term assessment. Finally, studying the entrepreneurial intention of former students is a problem because of the changing of the intention over time. Empirically anywhere in the world, choosing former students as a sample is a major challenge because it is not easy to contact them: some change of coordinates, absence of certain files. That is why the response rate was lower than we hoped. Therefore, we put a lot of time waiting for answers. Finally, we are interested in studying the impact on several components (for, profile, project, transfer) these concepts are interrelated and near thus our questionnaire was somewhat a little fragmented.

In conclusion, we suggest some new perspectives for research to follow up the work done First it's necessary to establish a longitudinal study on the Evaluation of entrepreneurship education to follow the whole process of evaluation of training. To do this, a sophisticated methodological protocol (evaluation sheets, technical tests,) should be developed in the future. Secondly, we want to validate the general framework of this research on a larger and varied sample and so evaluate the impact of entrepreneurship training in the thirteen Tunisian universities. In this assessment, indicators and criteria measuring impact and effectiveness of training in entrepreneurship can be identified for example as the research conducted recently by OCED (2009).



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