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Using the Theory of Planned Behaviour to Assess Entrepreneurship Teaching Programmes

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USING THE THEORY OF PLANNED BEHAVIOUR TO ASSESS ENTREPRENEURSHIP TEACHING PROGRAMMES

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Abstract

Facing the multiplication of entrepreneurship training programmes and the increasing of resources allocated to those initiatives there is a need to develop a common framework to evaluate, compare and improve the design of those programmes that goes beyond the measure of short-term microeconomic impact. That framework should include both a set of clearly identified criteria, and a methodology to effectively measure them.

The main objective of this article is to present such a framework, based on the theory of planned behaviour, and illustrate and discuss its applications through a real-life example.

Keywords

Entrepreneurship education; entrepreneurial intentions

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Introduction

Following a trend initiated in the USA in the 70s (Fiet, 2001a), the number of public and private initiatives to train and educate people to be more entrepreneurial have multiplied on both sides of the Atlantic (see for example Fayolle 2000a). Those entrepreneurship training programmes (ETP) respond to on one hand an increasing interest from students about entrepreneurial careers (Brenner et al., 1991; Hart & Harrison, 1992; Fleming, 1994; Kolvereid, 1996) and on the other hand an increasing awareness from public authorities about the importance of entrepreneurship as a contributor to economic development.

The multiplication of ETP and the increasing level of resources allocated to those initiatives has generated a growing interest from both fund providers and academics about the issue of the effectiveness and efficiency of those programmes, and the identification and diffusion of best practices (Fiet, 2001b). Be it in terms of direct (new venture and job creation) or indirect (increasing entrepreneurial spirit) impact on economic development, several researchers have explored ways to evaluate ETP and underlined the complexity of that issue (Bechard & Toulouse, 1998). Among those, Vesper and Gartner (1997) have identified at least 18 evaluation criteria for ETP and Block and Stumpf (1992) have highlighted the importance of measuring delayed effects. As a consequence, limiting the evaluation of ETP to their immediate impact in terms of new venture and job creations can be misleading and short-sighted, as the direct economic impact on the participants of those programmes is diversified and in some cases only visible after some delay.

Furthermore ETP can vary widely across countries and educational institutions, be it in terms of short term objectives, target audiences, format and pedagogical approaches (Gartner & Vesper, 1994). There is therefore a need to develop a common framework to evaluate, compare and improve the design of those programmes, that goes beyond the measure of short-term microeconomic impact. That framework should include both a set of clearly identified criteria, and a methodology to effectively measure them. The objective of this paper is to present such a framework, based on the theory of planned behaviour (Ajzen, 1991 & 2002), and illustrate and discuss its applications through a real-life example.

The first section of this paper will review prior research regarding the evaluation of entrepreneurship education programmes (ETP) and highlight some major challenges related to that issue. The second section will introduce the key aspects of the theory of planned behaviour and review its application to the field of entrepreneurship, while the third will derive the framework proposed to evaluate entrepreneurship training programmes. In the fourth section we present as an illustration of that framework the assessment of a real-life ETP and in the fifth section we discuss implications and further research avenues.

I) The evaluation of entrepreneurship training programmes

There has been recently an increased interest from researchers about the link between entrepreneurship and education in general and ETP in particular. In terms of educational context in general, empirical research has shown that the presence of entrepreneurship education programmes and a positive image of venture creators within educational institutions are both incentives for students to choose an entrepreneurial career. For example, Johannisson (1991) and Autio and al. (1997) highlighted the positive impact of students' perceptions of entrepreneurship as a career choice, along with the role played by the resources and other support mechanisms available in the teaching environment. Chen and al. (1998) identified a correlation between the level of entrepreneurial intention and the number of management courses taken by students enrolled in non-management programmes. Varela and Jimenez (2001), in a longitudinal study, chose groups of students from five programmes in three universities in Columbia and found that the highest entrepreneurship rates were achieved in the universities that had invested the most in entrepreneurship guidance and training for their students. Finally, Lüthje and Kranke (2003) underlined the importance of contextual factors in the university environment, which play a role in inhibiting or facilitating the occurrence and the intensity of entrepreneurial behaviours for technology students. Their results are very close to those of Autio and al. (1997) and Fayolle (1996) derived from the analysis of comparable samples.

In terms of ETP in particular, entrepreneurship education and training have been found to influence both current behaviour and future intentions (Kolvereid, Moen, 1997; Tkachev, Kolvereid, 1999; Fayolle, 2002). Other research works have studied the relationship between ETP and some variables such as the need for achievement and the locus of control (Hansemark,

1998) or the 'self-efficacy' (Ehrlich and al., 2000). They found that entrepreneurship education had a positive impact, enhancing these characteristics and the likelihood of action at some point in the future. Moreover, there are significant differences between students who have taken entrepreneurship courses and those who have not. Noel (2001) looked specifically at the impact of entrepreneurship training on the development of entrepreneurial intention and the perception of self-efficacy. The working samples were composed of different groups of students: those who graduated in entrepreneurship, those who graduated in management and those who graduated in other disciplines. All the students had attended an ETP. The results show that propensity to act as an entrepreneur, entrepreneurial intention and entrepreneurial 'self-efficacy' all reach the highest scores among the students who graduated in entrepreneurship. However, limited attention appears to have been paid to the importance of specific educational variables. Dilts and al. (1999) tried to show that certain teaching methods (traineeships and field learning) are more successful than others at preparing students for an entrepreneurial career.

Those research highlight two key challenges regarding the assessment of ETP : the selection of evaluation criteria on one hand and their effective measurement on the other hand, in particular regarding the effect of time and contextual variables. Regarding the evaluation criteria, as with any educational programme, it is possible with ETP to evaluate specific knowledge and/or skills acquired and measure how well students have understood key techniques and concepts. Student interest, awareness and intention can also be measured. Attendance rates, participation and student motivation are the classical criteria for measuring satisfaction, and evaluations or measurements taken during and shortly after the training are also important, as they can allow to identify variations and progress in performance levels (project management, team work, creative capacity, etc.). For ETP in particular, Vesper and Gartner (1997) listed 18 evaluation criteria, ranked in order of importance by expert respondents. The top five criteria were:

- The number of courses offered,
- Publications by teachers,
- Impacts on the community,
- Venture creation by students and young graduates, and
- Resulting innovations.

Two observations are in order here. First, the above classification was produced by academics, not by venture creation professionals or economic and political decision-makers. Second, the paper does not explain how the selected indicators can be measured. Moreover, educational institutions offer a wide range of entrepreneurship awareness and training activities (Gartner, Vesper, 1994; Fayolle, 2003). Given that the goal of entrepreneurship education is not necessarily for all participants to launch businesses in the short-term, the simplest and most obvious indicators are not generally the most appropriate. Evaluation criteria should be adjusted to the educational level, the goals of the training and the target audience, all of which need to be clearly identified (Bechard and Toulouse, 1998). The range of possible learning situations is clearly illustrated by Johannisson's (1991) taxonomical approach, which proposes five levels of learning designed to develop the attitudes, skills, tools and knowledge required for entrepreneurship.

Regarding measurement methodology issues, measurement biases can arise from both time and contextual effects. First, As shown by Block and Stumpf (1992) and summarized in Table 1, indicators can often produce delayed effects. For example 'venture creation' cannot possibly be measured during or immediately after an ETP, since the venture creation process usually takes time. On the other hand, the more delayed the measurement, the harder it is to isolate the role played by a given factor from the potential impact on the venture creation act of other variables.

Second, the orientations and behaviours of students and young graduates are influenced by a number of personal and environmental factors (Lüthje and Franke, 2003). As an example, researchers have shown the importance of the social status of entrepreneurial activities and situations (Begley and al., 1997) in the participant's environment. It is therefore difficult to measure the impact of ETP independently from those effects, in particular when trying to measure delayed effects and when comparing ETP participants with other groups of students.

Those research highlight some key challenges related to the assessment of ETP and the need for a theory-based framework encompassing both the criteria selection and measurement issues. We will review in the next section the theoretical foundation of such a framework.

Insert table 1 about here

II) The theory of planned behaviour and its application to the field of entrepreneurship

In order to assess the impact of ETP on their participants, we will use the theory of planned behaviour, originally presented by Ajzen (1991) and which is an extension of the theory of reasoned action (Ajzen and Fishbein, 1980). This theory assumes that human social behaviour is reasoned, controlled or planned in the sense that it takes into account the likely consequences of the considered behaviour (Ajzen and Fishbein, 2000). The underlying model has been applied for the prediction of many types of human behaviours (electoral choices, intention to stop smoking, etc...). It provides a useful framework to analyze how an ETP might influence its participants regarding their entrepreneurial behaviour.

The central factor of the theory of planned behaviour is the individual intention to perform a given behaviour. The main postulate is that intention is the result of three conceptual determinants:

- Attitude toward behaviour: The degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen, 1991). When new issues arise requiring an evaluative response, people can draw on relevant information (beliefs) stored in memories. Because each of these beliefs carries evaluative implications, attitudes are automatically formed. This factor encompasses the notion of perceived desirability (or lack thereof), which is one of the components of Shapero and Sokol's model (1982).
- Subjective norms: Perceived social pressures to perform or not the behaviour (Ajzen, 1991); i.e. the subject's perception of other people's opinions of the proposed behaviour. These perceptions are influenced by normative beliefs and are of less relevance for individuals with a strong internal locus of control (Ajzen, 1991 & 2002) than for those with a strong action orientation (Bagozzi and al., 1992). The factor partly covers the notions of desirability and feasibility from Shapero and Sokol's model (1982).
- Perceived behavioural control: Perceived ease or difficulty of performing a behaviour (Ajzen, 1991). This concept was introduced into the theory of planned behaviour to accommodate the non volitional elements inherent, at least potentially, in all behaviours (Ajzen, 2002). This

factors relates to perceptions of the behaviour's feasibility, which are an essential predictor of the behaviour. Individuals usually elect to adopt behaviours they think they will be able to control and master.

In the theory of planned behaviour, the three factors identified above are the antecedents of intention and therefore influence future behaviours. The underlying basis of intention and the determinants of behaviour are perceptions, which are developed gradually from beliefs.

Among those three factors, perceived behavioural control plays a significant part in the theory of Ajzen. The concept of perceived behavioural control appears similar to the notion of perceived self efficacy of Bandura (1977, 1982). Perceived self efficacy refers to 'people's beliefs about their capabilities to exercise control over their own activities and over events that affect their lives' (Bandura, 1991). From our point of view the distinction is that perceived behavioural control is rather focused on the ability to perform a particular behaviour. Accordingly, Ajzen (2002) re-specified the concept of perceived behavioural control. He refined the initial formulation which became related to the notion of 'perceived control over performance of a behaviour'.

This notion must be distinguished from the concept of 'Perceived Locus of Control' of Rotter (1966). Locus of control can be seen both as internal ('all depends upon me') and external ('if something happens to me, it is because of the circumstances'). The concept of "perceived locus of control" emphasises the perception of control of a behaviour while "perceived behavioural control" refers to the perception of control the individual has about how easily or not he can carry out the behaviour. The latter calls upon a specific behavioural context and not upon general predispositions to act. So, people can exhibit a low or a high degree of perceived behavioural control, but also, can perceived internally or externally the resources or obstacles inherent to the behaviour. Indeed, empirical research provides considerable evidence of the distinction between measures of self efficacy (ease or difficulty of performing a behaviour or, confidence in one's ability to perform it) and measures of controllability (belief of having a control over the behaviour or beliefs about the extent to which performing the behaviour is up to the actor) (Ajzen, 2002). The perceived self efficacy and the perceived controllability are conceptually independent of internal or external locus. Both may reflect beliefs about the presence of internal as well as external factors (Ajzen, 2002). Let us note that in terms of the factorial structure of

perceived behavioural control (for details, see Ajzen, 2002), it appears that perceived self efficacy is a significant factor to predict intention (and sometimes behaviour) whereas controllability is only sometimes significant to predict behaviour. The combination of both factors significantly improves production of intentions but not of behaviour.

The theory of planned behaviour is part of the larger family of intentional models that have been used to try to explain the emergence of entrepreneurial behaviour. In those approaches, career intentions depend on the attitude related to the behaviour considered, social standards and the level of perceived control (Ajzen, 1991). In the view of many authors (Shapero and Sokol, 1982; Bird, 1989; Krueger and Carsrud, 1993; Autio and al., 1997; Tkachev and Kolvereid, 1999), venture creation is a planned and hence an intentional behaviour. Intention therefore appears to be a better predictor of behaviour than attitudes, beliefs or other psychological or sociological variables (Krueger and Carsrud, 1993). Krueger and Carsrud (1993) were the first to apply the theory of planned behaviour to the field of entrepreneurship by trying to make Ajzen's (1991) model compatible with other theoretical frameworks, especially that of Shapero and Sokol (1982). Their final model, presented hereafter (Figure 1) is the result of this approach.

This model remains open to the influence of exogenous variables, that may play a role in the development of beliefs and attitudes. It also uses some of the conceptual contributions of Shapero and Sokol (1982), including the notion of external trigger, to explain the shift from intention to behaviour. Among other researchers having explored the link between the antecedents of intention and entrepreneurship behaviour, Krueger and Dickson (1994) showed that an increase of perceived behavioural control increases the perception of opportunity. Furthermore, Davidsson (1995) and Kolvereid (1996) have also argued that the mastery of vicarious experience and social influences are factors that may affect the intention and/or the decision to start a new business. Boyd and Vozikis (1994) show that intentions of creation are stronger when the degree of self efficacy grows due to the presence of an entrepreneurial role model and when the influences come from several close relatives. Finally, Tkachev and Kolvereid (1999) also demonstrate that the role model is a dominant factor for the prediction of status choice (self-employed or employee).

Intention models have also been used in the specific context of entrepreneurship education and training. Since the early 1980s, researchers have been able to identify the role played by

education and teaching variables in the development of perceptions about the desirability and feasibility of entrepreneurial behaviour (Shapero and Sokol, 1982). In other words, a training programme can have an impact on the antecedents of intention identified by the theory of planned behaviour (Krueger and Carsrud, 1993). As an example, Krueger and Carsrud (1993: 326) state that 'perceived self-efficacy / control for entrepreneurial behaviours' is influenced by the acquisition of management tools and exposure to entrepreneurial situations. They go on to say 'Teaching people about the realities of entrepreneurship may increase their entrepreneurial self-efficacy, but simultaneously decrease the perceived desirability of starting a business' (Krueger and Carsrud, 1993: 327). Based on their work, other researchers derived models designed to understand the development of entrepreneurial intention among students (Kolvereid, 1996; Autio, Keeley, Klofsten & Ulfstedt, 1997; Tkachev & Kolvereid, 1999). For example, the model developed by Autio, Keeley, Klofsten and Ulfstedt is designed to explain the entrepreneurial intention of students from four different countries. According to the authors, those intentions depend on numerous variables linked to the university environment, career preferences, values, the image of entrepreneurship, individual' situations and educational as well as professional backgrounds.

One of the most significant factors contributing to entrepreneurial intention is probably the perceived self efficacy (Davidsson, 1995; Krueger and Brazeal, 1994). The educational setting appears to be a fertile ground for development of perceived self efficacy: participation in student associations, evaluation of work in and out of class, peer evaluation. All of these elements can contribute to know how one sees oneself and whether one believes he or she is able to become a successful entrepreneur.

Those various contributions show that it is possible and relevant to use the theory of the planned behaviour to study the emergence and development of the entrepreneurship intention and how ETP might affect that emergence.

III) A framework to assess entrepreneurship training programmes

The model used to assess the impact of ETP is presented hereafter (Figure 2). In that model, an ETP is assessed based on its impact on participant's attitudes and intentions regarding entrepreneurial behaviour.

In that model, the independent variables are the characteristics of the ETP that one wishes to assess or compare. Those variables can be related to the ETP itself (whether it was attended or not) or to some specific dimensions related to its objectives, content (Gibb, 1988; Wyckham, 1989; Gasse, 1992; Ghosh and Block, 1993), teaching approach, audience or institutional settings (Safavian-Martinson, 1998).

In particular, Johannisson (1991) identifies five content levels for the development of entrepreneurial knowledge that can be used to characterize the content dimension of ETP : the know-why (attitudes, values, motivations), the know-how (abilities), the know-who (short and long-term social skills), the know-when (intuition) and the know-what (knowledge). Similarly, (Develay, 1992) distinguishes three dimensions of teaching approaches: content strategies, relationship strategies and acquisition strategies.

The dependent variables in the model relate to the antecedents of entrepreneurship behaviour as defined using Azjen's theory, i.e. measures of attitude toward the behaviour, subjective norms, perceived behavioural control and intention. Those are measured through surveys of the participants that are completed before and after the ETP.

The key strength of that approach is that it does not attempt to assess the impact of ETP directly in terms of specific entrepreneurial behaviour, which are, as discussed above, difficult to evaluate because they are multidimensional, subject to delayed effect and strongly influenced by environmental factors. In particular, entrepreneurial behaviour tend to be more affected by external factors than the examples cited by Ajzen (1991), which are behaviours that can be mostly controlled by the individuals concerned – for instance, the decision to stop smoking, short-term elective preferences or the choice of whether to breast-feed a baby. The impact of the ETP is measured in terms of changes in attitudes and intentions, which are antecedents of the behaviour and for which the theory of planned behaviour and its applications provide validated

measurement methodologies (Kolvereid, 1996). Furthermore, the changes in those dependent variables can then be correlated with the independent variables, i.e. the specific characteristics of the ETP considered.

This allows on one hand to measure and/or compare the impact of specific ETP and on the other hand to test whether that impact is affected by specific aspects of the design and/or execution of those ETP. The latter implies that this framework can be used not only to assess but also to improve the design and execution of ETP, by linking specific characteristics of the ETP with particular outcomes in terms of attitudes and intentions.

IV) Illustration

To illustrate the assessment framework presented above, we will present the results of an experimentation completed with a small group of students having attended in January 2004 a course of entrepreneurship in a French engineering school. This one-day ETP was entirely dedicated to entrepreneurship topics, covering different situations such as corporate venturing, acquiring existing businesses and starting new companies.

The students were addressed, before and after the ETP, two questionnaires aimed at measuring changes in their attitude and intention, as well as some specific characteristics of the ETP. Attitudes (attitudes towards the behaviour, subjective norms and perceived behavioural control) and intention before and after the ETP were measured through multiple-items Likert-scale surveys, derived from the questionnaires developed and validated by Kolvereid (1996). In those surveys, each item is scaled from 1 to 7 and the attitudes are measured as the average score of a predefined set of items. In this experiment, only attitude towards perceived behavioural control and entrepreneurial intentions were measured after the ETP. The questionnaire also included items related to some characteristics of the ETP, i.e. demographic and background questions about the audience (previous experience and the presence of a role model among closer relatives) and measures of skills acquired, derived from Johannisson five content-level research (1991).

The data collected is presented in Table 2. In that table the answers were adjusted such that a higher attitude or intention score always corresponds to a more positive attitude towards entrepreneurship.

The analysis of the data collected related to the measurement of attitude and intention indicates that the data is relatively consistent and reliable, considering the small scale of this experimentation. Furthermore, we computed a linear regression of the entrepreneurial intention as a function of the three attitude variables, which indicated a significant correlation between entrepreneurial intention and in particular the measure of attitude related to perceived control ($p < 0.01$, $R^2 = 45\%$). This confirms the validity of Azjen's model in this particular experimentation.

To assess the impact of the ETP, we computed for each participant the difference between the measures of attitude related to perceived control and entrepreneurial intentions before and after the ETP. Moreover we tested the correlation between those differences and the participant's answers regarding the ETP's characteristics (audience and content level). The results in terms of difference are presented hereafter. The analysis of correlation with the characteristics of the ETP did not provide any significant results, which might be due to the limited scale of the experiment.

The following table details the measured impact of the ETP (Table 3). In that table are presented the average difference between the measures of attitude and intention after and before the ETP, as well as the standard deviation and significance of those differences.

Those results show that the ETP assessed in the context of this experimentation had a strong – measurable- impact on the entrepreneurial intention of the students, while it had a positive, but not very significant, impact on their attitude related to perceived control. A closer look at the detailed answers (relative to individual items of the questionnaire) indicates that the ETP had apparently conflicting effect on the student's attitude regarding controllability. On one hand it gave them more confidence about what could be done to become an entrepreneur (positive effect) but it also made them realize that it was more difficult that they had initially anticipated (negative effect). Those paradoxical results are similar to those of (Krueger and Carsrud, 1993).

This experimentation highlights on one hand that the framework presented in this paper allows to implement a theory-based approach to assess ETP and on the other hand that measurable and actionable impact can be identified using this framework, even in small scale experiments. This approach can therefore be implemented in a wide range of context and settings in order to assess, compare and/or improve ETP in a systematic and rigorous manner.

V) Discussion

In this paper we have presented, motivated and illustrated a framework for the assessment of entrepreneurship trainings programmes (ETP). This framework goes beyond the simple measure of the skill and knowledge acquisition and/or of the short-term microeconomic impact of the ETP (number of business launched or number of job created). We developed an assessment approach based on the theory of planned behaviour, which avoids several pitfalls identified about those simple measures, such as the ambiguity in the selection of criteria and their measurements as objective dependent variables. Moreover, to take care of possible bias and sample comparability issues in doing so, the approach relies upon longitudinal surveys and captures variations in entrepreneurial attitudes and intention as antecedents of entrepreneurship behaviour.

This research work is a first step in an ambitious research programme aiming at producing theory-grounded knowledge about the assessment of ETP, as a whole or focusing on specific aspects. Moving forward, we have identified at least two avenues for further research. The first one concerns in particular the influence of the timing of the measurements of attitudes and intentions after the ETP. Do attitudes and intentions tend to be accentuated or, at the opposite, eroded over time? Is it relevant for the purpose of ETP assessment? This certainly needs to be further tested.

The second avenue is more general and ambitious, and concern the simultaneous assessment of several ETP in order to identify the link between specific programmes characteristics (pedagogical approach, objective, profile of teacher, content, etc..) and the effectiveness of those programmes, and use those comparisons in order to improve a priori the design of ETP. Indeed in an ETP, depending on its type and nature, students and teachers must deal with one or several

learning processes and an institutional environment that conveys a positive or negative image of entrepreneurship and offers variable amounts of resources. At first glance, these three families of variables (learning processes, institutional environment and resources) appear to constitute a first basis of experimental research.

Learning processes can be broken down into teaching objectives, types of students and disciplines, content, duration, intensity, frequency, teaching methods and approaches, and teacher numbers and profiles. Potentially, all these aspects could be independent variables with individual and collective impacts on attitudes and intentions. For example, a study by Fayolle (2000b) revealed the importance of the teaching objectives assigned to ETPs.

Furthermore, teaching approaches and methods can be divided into content strategies, relationship strategies and acquisition strategies (Develay, 1992). They may involve 'learning by doing', immersion in real-life situations, case studies and talks by entrepreneurs, or more didactical and conventional procedures whose efficiency could be assessed. For example, what impact on attitude and intention would have the development by students of business plan based on their own ideas and/or projects? What about working on a case study or attending a traditional classroom lecture? The purpose of our second avenue is to test and compare these alternatives, a task that may well involve incursions into the field of educational science.

In terms of institutional environment, not all educational institutions (universities, management schools, business schools and so on) offer the same political, social and cultural environments. Research in France has shown the important impact of the course or programme environment on the students' choice of career (Safavian-Martinon, 1998). An institutional environment that accepts and values entrepreneurial behaviour and employment in small and medium-sized enterprises may have a strong impact on the entrepreneurial intentions of students. Through its policies, incentives and behaviours, an institution can encourage its students to take the initiative and engage in venture creation and can also convey a positive image of entrepreneurship as a career choice (Autio et al., 1997).

Finally, resources may be material, financial and intellectual in nature. Examples include the availability of funds to help finance venture creation projects by students, support networks for

entrepreneurial initiatives (professionals and businesses), entrepreneurship centres, business incubators, a broad supply of entrepreneurship programmes, entrepreneurship institutes and specialized libraries. Assessing the impact of those resources on an ETP's efficiency and effectiveness should provide interesting insights regarding among other the organization and funding of those programmes.

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Table 1: Evaluation criteria and Measurement timing

Timing of measurement	Evaluation criteria
<i>During the ETP</i>	Number of students enrolled Number of courses General awareness of and/or interest in entrepreneurship
<i>Shortly after the ETP</i>	Intention to act Acquisition of knowledge and know-how Development of entrepreneurial self-diagnosis abilities
<i>Between 0 and 5 years after the ETP</i>	Number of ventures created Number of buyouts Number of entrepreneurial positions sought and obtained
<i>Between 3 and 10 years after the ETP</i>	Sustainability and reputation of the firms Level of innovation and capacity for change exhibited by the firms
<i>More than 10 years after the ETP</i>	Contribution to society and the economy Business performance Level of satisfaction with career

Based on Block and Stumpf (1992)

Table 2. Data collected

Measure	Number of items	Average score	Standard deviation	Crombach's alpha
<i>ETP Characteristics</i>				
<i>Audience (age, nationality, background)</i>	5	n.a.	n.a.	n.a.
<i>Content level (level of interest and skills acquired)</i>	5	n.a.	n.a.	n.a.
<i>Measures before the ETP</i>				
Attitude towards the entrepreneurial behaviour	32	4.49	0.57	0.68
Attitude related to subjective norms	6	4.12	1.06	0.63
Attitude related to perceived control	6	3.41	0.72	0.54
Entrepreneurial intentions	3	2.94	1.14	0.83
<i>Measures after the ETP</i>				
Attitude related to perceived control	6	3.73	0.97	0.70
Entrepreneurial intentions	3	3.58	1.4	0.76

Table 3 Impact of the ETP

Measure	Mean difference	Standard deviation	Sig.
Attitude related to perceived control	0.32	0.19	0.10
Entrepreneurial intentions	0.63	0.22	0.01

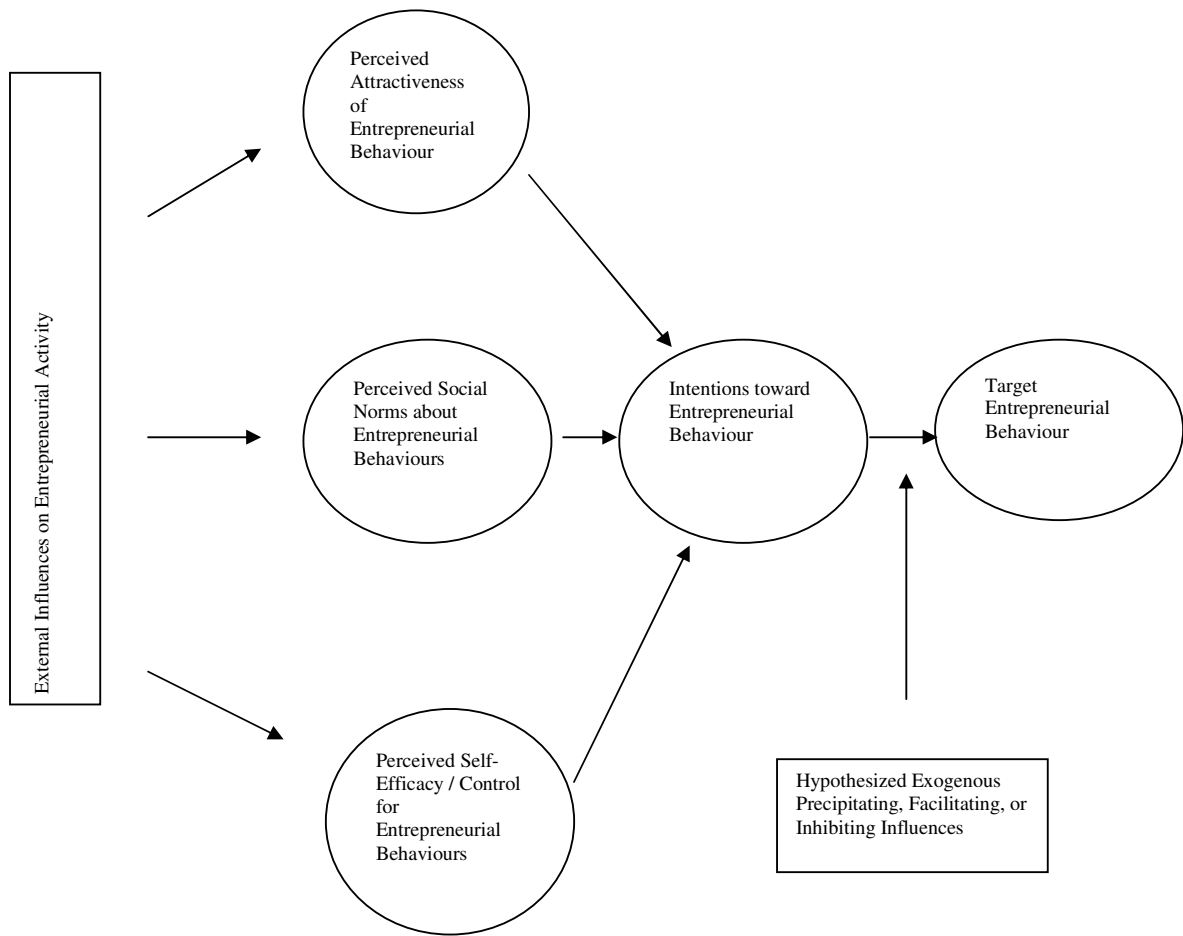


Figure 1: Analysing Intentions Toward Entrepreneurial Behaviour using The Theory of Planned Behaviour – Krueger & Carsrud (1993: 323)

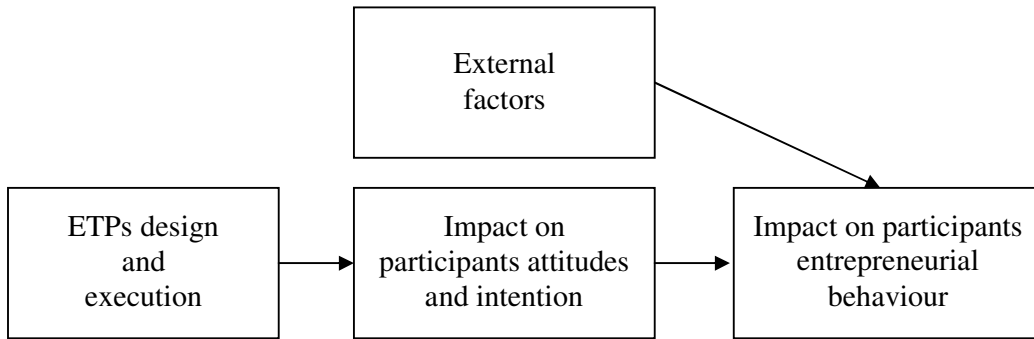


Figure 2: ETP Assessment model

Question	Factor tested	Responses	Agreed or strongly agreed	%
1	Business plan as pre-screening	30	29	97%
2	Quality of management team	30	30	100%
3	Quality of business model	30	30	100%
4	Deal terms	30	18	60%
5	Start-up initial position	30	18	60%
6	Information provided by the entrepreneur	30	25	83%
7	Management influence	30	6	20%
8	Expectation at the time of the deal	30	16	53%