

ENTREPRENEURIAL INTENTIONS: THE ROLE OF ENTREPRENEURIAL SELF-EFFICACY IN PERSPECTIVE OF THEORY OF PLANNED BEHAVIOUR

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ABSTRACT

This study aimed to examine the determinants of entrepreneurial intention of business students by integrating at the Theory of Planned Behavior (TPB) the entrepreneurial self-efficacy. A sample of 280 students from Higher Institute of Management of Gabès in Tunisia was surveyed. The data were analyzed using structural equation modeling to validate the relationship between entrepreneurial intention and its determinants. The results show a positive and significant relationship between entrepreneurial intention and three of the factors considered: subjective norm, perceived behavioral control, and entrepreneurial self-efficacy. The finding of this research study will facilitate policy makers and educators to promote entrepreneurial activities at the university level.

Keywords: Entrepreneurship, Entrepreneurial Self-efficacy, Perceived Behavioral Control, Subjective Norm, Tunisia

INTRODUCTION

Policymakers believe that entrepreneurship activities can be a tool to boost economy growth and to solve other economy problem, such as unemployment (Oosterbeek et al., 2010). The creation of new businesses stimulates local investment and leads to the creation of new jobs, competitiveness and, consequently, economic and social development. Entrepreneurship is now seen as key to economic growth and social development (Rasmussen & Sorheim, 2006; Vanevenhoven, 2013; Hitt et al., 2001; Urbano et al., 2016)

The increasing rate of graduate unemployment is a major challenge regarding youth unemployment. This is a clear indication that the public sector is not capable of absorbing these huge numbers of graduate students out every year.

This is why governments must provide support to entrepreneurship and encourage graduates of different universities to start their own businesses to solve even part of the unemployment problem among the youths (Al-Mamary et al., 2020). It is, therefore, better to encourage them to have self-employed careers instead of engaging and looking for wage employment as a survival strategy (Israr & Saleem, 2018).

In Tunisia, the government has established many agencies and programs to encourage graduate students to start their own businesses. However, all these initiatives and programs have little impact on the number of real business start-ups.

The intention of entrepreneurship is considered as a determining factor that affect any decision geared for choosing a career as an entrepreneur. Understanding the antecedents of entrepreneurial intentions is crucial for policymakers and educators who want to motivate more

people to start their own businesses. To examine such an entrepreneurial intention, most of studies have utilized the Theory of Planned Behaviour for examining entrepreneurial intention among university students (Mentoor & Friedrich 2007). The TPB is a prominent theory from social psychology that has been used in the entrepreneurial intention domain, and is the only theory in social psychology that views intentions as influential predictors of behavior (Kautonen et al., 2015). With this in mind, this study intends to define and determine the factors that influence the entrepreneurial intentions among students at the Higher Institute of Management of Gabès.

The TPB has been tested by various scholars in different contexts, but seldom in Tunisia. There is a strong need for empirical evidence to measure entrepreneurial intention in Tunisia because of the high rate of unemployment. Entrepreneurial self-efficacy is theoretically proposed as a major antecedent of the intention to become an entrepreneur (Krueger et al., 2000; Crespo et al., 2018). Therefore, in this research study, we are testing the effect of self-efficacy on the constructs of the TPB.

The remainder of this research is structured as follows. Initially, we discuss the theoretical background for this research and develop the research hypotheses of entrepreneurial intentions model based on TPB. This is followed by the research design and method. Next, we present the data analysis and hypotheses testing results. Thereafter, a detailed discussion of the findings and their implications are provided. Finally, we present the concluding remarks, implication and research limitations, and directions for future research to address such limitations.

THEORETICAL BACKGROUND AND STUDY RESEARCH MODEL

The TPB is a widely popular conceptual framework used in the study of human behavior (Ajzen, 2001; Ajzen, 2002). The TPB describes behavioural intention as the product of three constructs: attitude toward the behaviour, subjective norms, and perceived behavioural. In entrepreneurial studies, the attitude toward entrepreneurial intentions measures the individuals' expectations concerning the act of starting up a new business. The previous literature highlights a positive and significant relationship between attitude towards entrepreneurial behavior and entrepreneurial intention (Krueger et al., 2000; Souitaris et al., 2007; Gelderen et al., 2008; Ferreira et al., 2012).

Subjective norm is also playing very crucial role for the development of an entrepreneurial intention (Ajzen, 2001; Ajzen, 2002). It is defined as a person's perception that others, such as friends and family members, believe that he or she should or should not perform the behavior (Cameron et al., 2012). Several studies found a significant impact of subjective norms on intentions (Kolvereid, 1996; Kolvereid & Isaksen, 2006), while other studies do not support this finding (Krueger et al., 2000; Linan & Chen, 2009). Otuya et al. (2013) proposed that subjective norms contribute the least to entrepreneurial intentions Figure 1.

In this sense, people can advice of others to gradually change their original attitude toward a behavior. The cognitive dissonance theory suggests that a person is likely to change behavior to seek cognitive consistency when inconsistency exists (Festinger, 1957). Thus, a person may change his or her attitude toward behavior in order to feel affiliated with people who are significant to this person. There is also empirical evidence in business research indicating the positive relationship between subjective norm and attitude (Al-Rafee & Cronan, 2006; Lim & Dubinsky, 2005).

Perceived behavioral control is the third and final predictor of intentions in Ajzen (1991) TPB. It reflects the perceived ability to perform the target behaviors and is connected with the individual's perception of the ease or difficulty of performing the behavior (Ajzen, 1987). Previous research has found a significant positive relationship between perceived behavioral control and an entrepreneurial intention (Krueger et al., 2000; Souitaris et al., 2007; Gelderen et al., 2008; Gird & Bagraim, 2008; Solesvik, 2017). There is a positive relationship between perceived behavioral control and the intention to become an entrepreneur among business students compared to non-business students (Sihombing, 2011). According to Bandura (1986) social cognitive theory, social persuasions play an important role in one's capability beliefs. The author argued that people could be persuaded to believe that they have the skills and capabilities to perform a behavior successfully. Such encouragement could help people to remove self-doubt and concentrate on their effort to perform a task (Bandura, 1986). There is a positive relationship between subjective norm and perceived behavioral control.

The following hypotheses were developed:

- H₁: Attitude has a positive impact on students' entrepreneurial intentions.*
- H₂: A subjective norm has a positive impact on students' entrepreneurial intentions.*
- H₃: Perceived behavioral control has a positive impact on students' entrepreneurial intentions.*
- H₄: A subjective norm has a positive impact on students' attitude toward entrepreneurial action.*
- H₅: A subjective norm has a positive impact on students' entrepreneurial perceived behavioral control.*

Self-efficacy refers to an individual's conviction in their personal capacity to complete a job or a specific set of tasks (Bandura, 1977; Bandura, 1990). Individuals with high levels of self-efficacy are found to prefer more challenging tasks and have higher resilience in the face of obstacles (Bandura, 1997). In entrepreneurship research, some researchers have defined entrepreneurial self-efficacy as a person's belief in their ability to successfully launch an entrepreneurial venture (Markman et al., 2002; Segal et al., 2005; McGee et al., 2009). Self-efficacy is found to be positively associated with new venture performance, particularly in very young ventures (McGee & Peterson, 2017). Entrepreneurial self-efficacy and perceived behavioral control are two distinct constructs, which had been distinguished in many researches (Tsai et al., 2014; Tavousi et al., 2009). The relationship between entrepreneurial self-efficacy and intention has been investigated in many previous studies. For instance, when undergraduate and graduate students have a high self-efficacy, they also have high intention to engage in entrepreneurship (Kickul et al., 2008; Shinna et al., 2017). Based on the TPB, a person's perceived behavioral control and attitude toward behavior can be determined through his or her entrepreneurial self-efficacy (Ajzen, 1991). Linan, (2008) believe that if a person has strong entrepreneurial self-efficacy of running a business, he or she can perceive the low risk in terms of performing business start-up. Thus, people, who have high entrepreneurial self-efficacy, can have high level of willingness to start a business. In other word, entrepreneurial self-efficacy can influence perceived behavioral control positively (Doanh, & Bernat, 2019). A person's entrepreneurial self-efficacy may increase in case of significant people approving his or her decision to become an entrepreneur (Doanh, & Bernat, 2019). Following hypotheses formed on the basis of the above explanation:

- H₆: Entrepreneurial self-efficacy has a positive impact on students' entrepreneurial intentions.*
- H₇: Entrepreneurial self-efficacy has a positive impact on students' attitude toward entrepreneurial action.*
- H₈: Entrepreneurial self-efficacy has a positive impact on entrepreneurial subjective norm*
- H₉: Entrepreneurial self-efficacy has a positive impact on entrepreneurial perceived behavior control.*

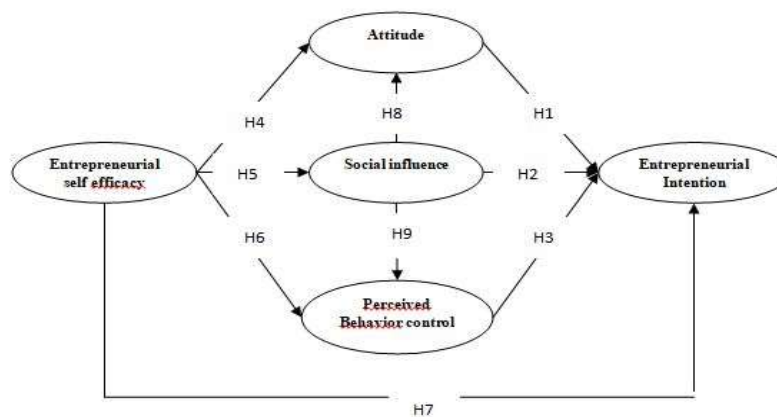


FIGURE 1
THEORETICAL MODEL

RESEARCH METHODOLOGY

Data Collection and Sample

The data were collected from February 2017 to April 2021. A total of 280 students of the Higher Institute of Management of Gabès were interviewed face to face to complete a questionnaire that contained measures of the constructs of model. The data were collected from the students of various departments consisting of Management, MIS, Accounting and Economics.

Originally, the questionnaire was designed in English and then translated into Arabic and back-translated to ensure the accuracy and appropriateness of language. A first Arabic version of the questionnaire was drafted and, then reviewed by 2 academics and pilot-tested on 8 students. Some changes on questionnaire were made to improve its readability, format and relevance of its instruments.

The questionnaire used in the study consisted of three parts. The first part is concerned with the antecedents of entrepreneurial intention, which are ATT, SN, PBC and ESE. The second part includes items about respondents' demographic characteristics information such as gender, entrepreneurs among parents and relatives, business, entrepreneurship and social experiences, and entrepreneurship training.

The measurement of attitude toward entrepreneurial intention, subjective norms, perceived behavior control and entrepreneurial intentions were adapted from from (Linan & Chen, 2009). Entrepreneurial self-efficacy was adopted from (Linan, 2008).

All responses were measured using five-point scale items, ranging from “1=strongly disagree” to “5=strongly agree”. The data were analyzed using structural equation modeling (SEM), using LISREL version 23 and the SPSS software program.

The samples were randomly selected. 22 male students (10.3%) and 192 female students (89.3%) were participants in this study. This may be attributed to the high number of female students in the Higher Institute of Management of Gabès, the University of Gabès. In addition, it was found that 95 of the students (36.4%) were from the program of management information systems (MIS), followed by 70 students (26.8%) from the program of management. Add to those 51 students (19.9%) from the program of accounting, followed by 45 students (16.9%) from the

program of finance. Table 2 gives information on the extent of the students' interest in starting up new ventures.

Measurement Model

The convergent validity involves the verification of three indices: factor loadings, average variance extracted (AVE) and composite reliability (CR). After removing fourteen items with poor outer loading value (INT1; INT2; INT3; ATT1; ATT2; ATT3; SN2; PBC1; PBC2; PBC4; PBC6; ESE1; ESE2; ESE6), the measurement model of entrepreneurial intentions was reduced to twelve items Figure 3.

The results of convergent validity occur as follows Table 1. Discriminant validity is guaranteed by checking two criteria: Root Square of AVE, and Cross Loadings (Hair et al., 2011). As seen in the Table 1 below, it's possible to verify the discriminant validity of the five latent variables, in terms of the criterion Table 1. Furthermore, the variance shared between constructs measured by the correlations between constructs is lower than the variance shared by a construct with its indicators Table 2. In sum, we can confirm the measurement model's validity. The Cronbach's alpha test is noted to be used usually to measure internal consistency reliability among items (Henseler et al., 2015). In this study, the internal consistency or composite reliability of the each construct ranges from 0.885 to 0.958 and this is above the recommended threshold value of 0.70 (Hair et al., 2011). Thus, the results point out that the items used to represent construct have satisfactory internal consistency reliability.

Thus, based on the tests of both validity and reliability, the measurement model has been validated successfully and hence further analysis can be done.

Table 1 RESULTS OF ROTATED FACTOR LOADING AND COMPOSITE RELIABILITY				
Latent variable	Observed variable	Standardized loading	AVE	Cronbach' Alpha
Attitude	ATT 1	0.647	0.646	0.628
	ATT2	0.647		
Social norm	SN1	0.743	0.742	0.651
	SN2	0.743		
Perceived behavior control	PBC1	0.592	0.562	0.716
	PBC2	0.592		
Perceived self efficacy	PSE1	0.657	0.662	0.746
	PSE2	0.630		
	PSE3	0.701		
Entrepreneurial Intention	INT1	0.816	0.816	0.775
	INT2	0.8016		

Table 2 CORRELATION MATRIX					
	ATT	SN	PBC	PSE	INT
ATT	0.803				
SN	0.22	0.861			
PBC	0.40	0.40	0.749		
PSE	0.47	0.12	0.45	0.813	
INT	0.56	0.47	0.85	0.45	0.903

Notes: ATT: Attitude; INT: Intention; SI: Social Norm; AW: Awareness; QIS: Quality Internet Connection; The diagonal element represent the square of AVE (Average variance extracted)

Structural Model and Hypotheses Testing

After establishing a measurement model the next step was to access the structural model.

Five fit indices was used to examine the structural model. The analysis result indicated that the model achieved the overall fit to the actual data: CFI, GFI, TLI, and IFI all were larger than 0.9 and RMSEA was smaller than 0.08, and the model fit indexes were improved Table 3. The goodness-of-fit indices are summarized in Table 4, and demonstrated a good overall fit of the structural model to the data. Therefore, it is proceeded to examine the path coefficients of the structural model Figure 2.

The findings suggest that attitude towards entrepreneurship has the strongest effect on entrepreneurial intention ($\beta=0.51$; $p<0.001$), followed by entrepreneurial self-efficacy ($\beta=0.41$; $p<0.001$), perceived behavioral control ($\beta=0.31$; $p<0.001$) and subjective norm ($\beta=0.18$; $p<0.001$) respectively.

The relationship between entrepreneurial self-efficacy and perceived behavioral control is the strongest ($\beta=0.63$; $p<0.001$). Moreover, subjective norm is rather strongly influenced by entrepreneurial self-efficacy ($\beta = 0.35$; $p<0.001$). Attitude towards entrepreneurial intention is influenced by entrepreneurial self-efficacy ($\beta=0.19$; $p\text{-value}=0.000 < 0.001$). Overall, the results as shown in Table 4 provide evidence to support all hypotheses (H1-H9).

Table 3		
FIT INDICES FOR MEASUREMENT AND STRUCTURAL MODEL		
Fit indices	Recommended value	Structural model
Chi squared of freedom	≤ 3.00	1.04
Normalized Fit Index (NFI)	≥ 0.90	0.95
Non- Normalized Fit Index (NNFI)	≥ 0.90	0.98
Comparative Fit Index (CFI)	≥ 0.60	0.99
Goodness of Fit Index (GFI)	≥ 0.90	0.97
Adjusted goodness of Fit (AGFI)	≥ 0.80	0.94
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.029

Table 4					
PATH COEFFICIENTS AND HYPOTHESIS TESTING					
Hypothesis	Relation	Hypothesized direction	t-value	Path coefficient	Supported
H1	ATT \longrightarrow INT	+	2.94	.51	YES
H2	SI \longrightarrow INT	-	1.03	- .18	No
H3	PBC \longrightarrow INT	+	5.92	.31	YES
H4	ESE \longrightarrow INT	+	2.36	.41	YES
H5	ESE \longrightarrow ATT	+	2.26	.19	YES
H6	ESE \longrightarrow SN	+	3.26	.35	YES
H7	ESE \longrightarrow PBC	+	5.38	.63	YES
H8	SI \longrightarrow ATT	+	3.34	.33	YES
H9	SI \longrightarrow PBC	+	2.64	.31	YES

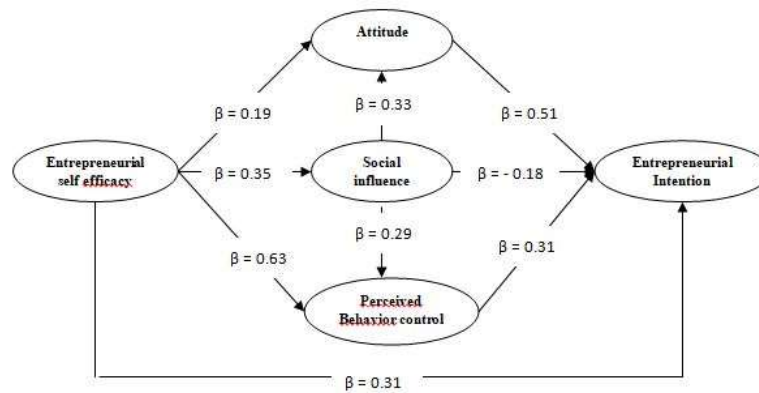


FIGURE 2
THE RESULTS OF STRUCTURAL ANALYSES

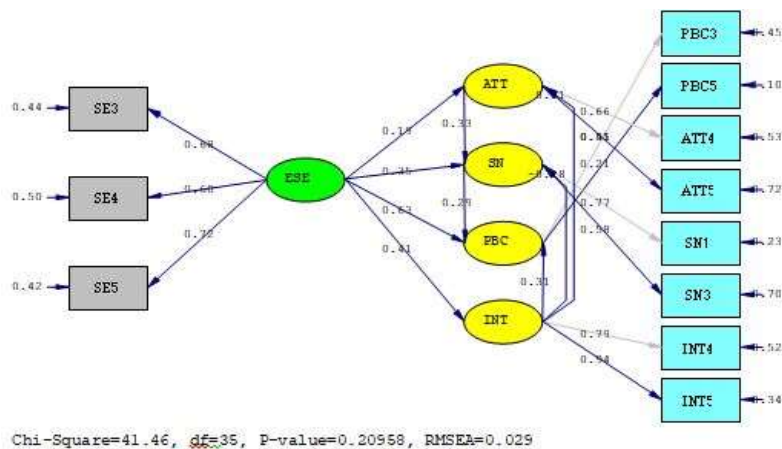


FIGURE 3
MEASUREMENT MODEL

RESULTS AND DISCUSSION

The findings support previous research regarding the use of the Theory of Planned Behaviour as a valuable model in predicting entrepreneurial intentions of students (Engle et al., 2010; Gird & Bagraim, 2008; Souitaris et al., 2007).

In this study, personal attitude is the greatest influence of the students' intention to become an entrepreneur. This conclusion is supported by previous studies that demonstrated that attitude towards entrepreneurial behavior is a factor that positively influences entrepreneurial intention (Gird & Bagraim, 2008; Pihie, 2009; Schwarz et al., 2009; Ferreira et al., 2012).

Additionally, it was demonstrated that entrepreneurial self-efficacy also positively influences the entrepreneurial intention of students. For instance, when undergraduate and graduate students have a high self-efficacy, they also have high intention to engage in entrepreneurship. This conclusion is supported by previous studies that demonstrated that perceived behavioral control is a factor that positively influences entrepreneurial intention (Kickul et al., 2009) and it contradicts with research findings indicating that entrepreneurial self-efficacy and intention are not significantly associated with differences in gender (Murugesan & Jayavelu, 2017; Zhao et al., 2005).

Moreover, the results of our study also show that the perceived behavioral control also positively influences the entrepreneurial intention of students. This means that if a student has the perception that he has knowledge and skills to develop entrepreneurship activities, capable of making it easier to create a new business, this will have a positive impact on entrepreneurial intention. This conclusion is supported by previous studies that demonstrated that perceived behavioral control is a factor that positively influences entrepreneurial intention (Krueger et al., 2000; Souitaris et al., 2007; Gelderen et al., 2008; Gird & Bagraim, 2008; Linan, 2008; Solesvik, 2017).

Finally, the results revealed that social norms can not be considered as a predictor of students' entrepreneurial intentions. These results are lined with previous studies which indicate that this variable has no apparent influence on students' entrepreneurial intentions. (Bachiri, 2016; Pragoso et al., 2019). The findings of our study seem contrary to several previous empirical studies, such as (Ajzen, 1991; Alam et al., 2019; Shah & Soomro, 2017; Mensah et al., 2021), who suggested that, can plays a crucial role in the determination of students' entrepreneurial intentions.

The results of this research have important implications for universities to develop students' entrepreneurial intentions and to motivate them to start their businesses in the future when they have the opportunity. Firstly, universities must define a joint strategy to stimulate an entrepreneurial attitude in students at different levels of education. Those policies could foster awareness about entrepreneurship as a career option which could have an impact on the cognitive process of the individuals and their beliefs in becoming entrepreneurs (Elnadi & MGheith, 2021). Second, the strong effect of self-efficacy on entrepreneurial intention suggests that governments and academic institutions should stimulate youth to become entrepreneurs by improving their self-efficacy (Elnadi & MGheith, 2021). In addition, instructors may invite successful cyber entrepreneurs to share their success stories, providing anecdotal evidence and practical insights to help students construct a positive mindset toward cyber entrepreneurship (Tseng et al. 2022). Thirdly, universities can also improve perceived behavioral control by providing entrepreneurial education and training programs to improve students' abilities and skills in performing different tasks and roles of an entrepreneur.

This study has several limitations. The first limitation of this research is its sample size, which only consists of one university in Tunisia. The finding may not represent the whole population of students in Tunisia. Further similar studies could be extended to include other regions of this or other countries. Second, it will be important to include new constructs in the explanation of entrepreneurial intention, such as, the perceived desirability, perceived feasibility, perceived access to finance, perceived levels of economics and entrepreneurial policy development and regulations.

CONCLUSION

The purpose of this study was to test the key factors influencing the entrepreneurial intention of students. Therefore, an extended model was proposed based on the TPB by adding entrepreneurial self-efficacy. Particularly, four factors: attitude towards entrepreneurship, entrepreneurial self-efficacy, perceived behavioral and subjective norm were all formulated as key factors predicting entrepreneurial intentions of students. In addition, this study also proves that the application of the planned behavioral theory in Tunisia context in is totally fit.

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