



INFLUENCE OF ENTREPRENEURIAL EDUCATION AND BEHAVIOUR ON STUDENTS' INTENTION TO START A BUSINESS IN MOROCCO: AN EMPIRICAL STUDY

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Abstract:

The role of entrepreneurship in economic development is significant, which is why business schools and universities are prioritizing entrepreneurship education. This research aims to determine the impact of these programs on individuals' intent to become entrepreneurs using Ajzen's theory of planning behavior. The survey method was used to gather data from 403 participants and SEM path analysis was employed to analyze the results. The findings suggest that feedback and business plan activities have a direct effect on entrepreneurial intention. This information can be utilized to improve entrepreneurship training courses and support their providers. Furthermore, the relationship between entrepreneurship and business planning can be leveraged by educational institutions, organizations, and policymakers to foster future entrepreneurs.

JEL: M13, M53

Keywords: entrepreneurial intentions, theory of planned behaviour, subjective norm, perceived behavioural control

1. Introduction

Entrepreneurship is widely recognized for its contributions to job creation, economic growth, and regional competitiveness (Davey, Hannon, & Penaluna, 2016; European Commission; Zahra, 1991). As stated by Davey et al. (2016), it also presents a career

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opportunity by generating employment through new business ventures (European Commission, 2003). Entrepreneurship plays a vital role in promoting national welfare (Martinez et al., 2010), and this has resulted in a growing global interest in entrepreneurship education (EE) (Bell & Bell, 2016). The education system has placed a strong emphasis on entrepreneurship and business creation to foster social, economic, and organizational development (Matlay, 2006), leading to the growth of entrepreneurship as an academic subject over the past two decades (Bell & Bell, 2016; Martin et al., 2013; Fayolle, 2013). Kakouris and Georgiadis (2016) assert that the UK government is taking significant steps to update its policies on entrepreneurship education, which it views as crucial for employability. They further emphasize that entrepreneurship education is a driver of endogenous economic development and an essential component of developed and knowledge-based economies. The goal of global educational organizations is to cultivate entrepreneurial intent in graduates through entrepreneurship education (Kakouris & Georgiadis, 2016). This has led to continuous efforts to provide entrepreneurship education, with over 2,000 courses offered in more than 1,600 universities worldwide in 2006 (Hisrich, 2006). According to Davey et al. (2016) and Gibb and Hannon (2006), entrepreneurship education has the potential to shape the thoughts and actions of students and influence their entrepreneurial mindset. Kraaijenbrink et al. (2010) found that universities can play a role in shaping students' perception of entrepreneurship. As noted by Verheul et al. (2002), and supported by Davey et al. (2016), the education system can cultivate students' entrepreneurial skills, behaviors, and intentions. This study aims to determine the extent to which business plan activities, the introduction of models and networks, feedback from mentors or teachers, and other features of entrepreneurship education programs impact entrepreneurial intention. It also examines the impact of these elements on the antecedents of entrepreneurial intention, such as perceived behavioral control, subjective norm, and attitude. This study is based on experiential learning and seeks to contribute to the theoretical understanding of the relationship between entrepreneurship education and entrepreneurial intention, as well as to identify practical implications for the findings. The paper is structured as follows: an introduction to the context of entrepreneurship and entrepreneurial intention, a literature review, a description of the research methodology and technique, the results and discussion, and a conclusion.

2. Literature review

2.1 Entrepreneurial intent

The concept of entrepreneurial intention has been defined in multiple ways by various researchers. According to Katz and Gartner (1988), it is the pursuit of knowledge and resources for starting a business. Bird (1992) defines it as a mental state rooted in personal intention and experience towards starting a new venture. Similarly, Tubbs and Ekeberg (1991) view entrepreneurial intention as a catalyst for entrepreneurial behavior. Reynolds and Miller (1992) characterize it as a personal commitment to a new venture, while

Krueger (1993) and Krueger et al. (1995) believe that it is an important factor in determining an individual's commitment to entrepreneurial behavior. The role of intentions in human behavior has been emphasized by Tubbs and Ekeberg (1991), who state that many voluntary actions, such as starting a business, are best predicted by intentions (Ajzen, 2005). Raposo and Do Paço (2011) and Wu and Wu (2008) believe that entrepreneurial intention is a desire to own a business or start a business (Kruger et al., 2000), and that intentions are a representation of future behavior or self-prediction (Bagozzi et al., 1999). Individuals with a positive attitude towards a behavior tend to have a stronger intention to carry out that behavior (Ajzen, 1991). Assessment and evaluation in education play a crucial role in determining students' future success, and the development of entrepreneurial intention is fostered from the start of higher education courses until graduation, with the aim of fostering entrepreneurial behavior (Smith & Beasley, 2011). The initial formation of entrepreneurial intention is particularly important, as it affects the intention to start a business (DeGeorge & Fayolle, 2008). Studies on the relationship between entrepreneurial education (EE) and entrepreneurial intention have yielded conflicting results. Some studies suggest that EE can lead to an increase in entrepreneurial intention (Sánchez, 2013; Souitaris et al., 2007; Peterman & Kennedy, 2003), while others (von Graevenitz et al., 2010; Oosterbeek et al., 2010) are inconclusive. Bogatyreva (2019) and Van Gelderen et al. (2015) suggest that there may be a gap between intentions and actual entrepreneurial activities, which can impact the effectiveness of EE. The impact of EE on entrepreneurial intention may be influenced by various factors, including interaction with others during the course (Naffziger et al., 1994) and moderators present during EE (Bae et al., 2014; Martin et al., 2013; Unger et al., 2011). Further research is needed to explore the effectiveness of EE programs and to provide productive outcomes (Pittaway & Cope, 2007). Intentions play a crucial role in determining the motivation and effort individuals put into expected behavior (Lorti & Castogiovanni, 2015). It has been widely accepted among researchers that entrepreneurial intentions are key antecedents of entrepreneurial actions (Lee, Wong, Foo & Leung, 2011). Psychological studies also support the idea that intention is the best predictor of actual behavior (Ajzen, 2005) and is a primary element in understanding planned behavior (Samwel Mwasalwiba, 2010). According to Neck and Greene (2011), the impact of intention on persistence in entrepreneurial behavior has been widely acknowledged by researchers. As Krueger et al. (2000) emphasize, entrepreneurial intention is critical to understanding the entrepreneurial process. This sentiment has been confirmed by Schlaegel and Koenig (2014), who note that intention has become a significant factor in the ability of individuals to launch a new venture over the past decade. The relationship between entrepreneurship education and the intention was demonstrated by Katz (2003) through surveys. To promote entrepreneurial intentions and career choices, various institutions have taken action (Laguia et al., 2019). Starting a business is a complex process that involves various steps such as selecting a location, type of business, field, growth strategies and evaluating financial risk. To succeed, an entrepreneur must possess a strong sense of purpose and intention (Cheng et al., 2009).

This primary intention has a significant impact on persistence in terms of entrepreneurial behavior (Krueger et al., 2000), making entrepreneurial intention an essential aspect of comprehending the complete entrepreneurial process (Cheng et al., 2009). Krueger and Brazel (1994) argue that intentions, which are based on perceptions, can be acquired through education, highlighting the crucial role of entrepreneurship education in this regard.

2.2 Attitude to behaviour

According to Ajzen (2002, p.5), the attitude towards a behavior is defined as "*the extent to which a person has a favorable or unfavorable evaluation or assessment of the behavior in question.*" Souitaris et al (2007) have shown that the attitude towards entrepreneurial behavior is related to the difference between a person's personal perception of becoming self-employed and their intention to work as an employee.

2.3 Subjective standard

Solesvik, Westhead, Kolvereid, and Matlay (2012, p. 448) explain that the subjective norm refers to "*the perceived social pressure to perform the action of being monitored.*" These are shaped by the individual's values, beliefs, and norms of influential people such as family, teachers, other entrepreneurs, and friends, which play an important role in influencing the individual. This influence drives and shapes the formation of the individual's entrepreneurial intentions (Ajzen, 2001). The subjective norm is an individual's perception of the opinion of other individuals concerning a given behavior, where "others" are usually people who are important to the individual. Tsai et al. (2016) suggest that the subjective norm mediates the increase in entrepreneurial intention. While this study focuses on members of society rather than students, its results support current research by showing that social norms are a mediator that influences entrepreneurial intention. People in society may encounter more realistic entrepreneurial environments and take more factors into account, such as family and time, compared to students. Previous researchers have indicated that those with a successful model in their family, workplace, or social enterprise are more likely to become successful entrepreneurs (Aldrich & Zimmer, 1986; Matthews & Moser, 1995). This suggests that entrepreneurial development is positively related to family background and childhood experiences, previous work experience, and exposure to other businesses (Morris & Lewis, 1995). A large body of research has demonstrated the positive role of the subjective norm as a mediator in the relationship with entrepreneurial intention, and it is not surprising that family and closely related individuals play a key role in the formulation of subjective norms (Tsai et al., 2016).

2.4 Perceived behavioural control

According to Liñán & Chen (2006, p.4), Perceived Behavioural Control (PBC) refers to an individual's belief about the ease or difficulty of performing a specific behavior. Ajzen (2012) explains that PBC is influenced by an individual's control beliefs, which include

the availability of resources, market opportunities, social support, role models, and entrepreneurial support. A study by Souitaris et al. (2007) of science and engineering students from universities in London and Grenoble found a significant relationship between subjective norm and entrepreneurial intention. However, Wu and Wu (2008) conducted a study of Chinese students in Shanghai and failed to observe a connection between subjective norms and entrepreneurial intention. Solesvik et al. (2012) conducted a study of economics and business management students in Ukraine and found that students with a positive attitude towards self-employment were more likely to have a higher intention to pursue entrepreneurship. Sniehotta et al. (2014) criticized the Theory of Planned Behaviour (TPB) for its lack of clarity in explaining how cognitions change, making it difficult to design effective behavior change interventions. Ajzen (2011) also noted that TPB is not a theory of behavior change, but instead, a framework for explaining and predicting people's intentions and behavior. Ajzen (2011) stated that TPB can still be a useful concept for designing effective behavior change interventions. According to Ajzen (1991), a person's attitude towards a behavior, subjective norm, and perceived behavioral control are the three key determinants of their intentions. Ajzen (1991, p. 181) further explains the concept as the "*intensity of effort people are willing to make and the effort they plan to make to perform the behavior*".

2.5 Business network

Mitchell (1969) defined networks as the linking of a specific group of people, objects, and events (Paasche et al., 1993, p.175). The study of entrepreneurial networks is divided into two main schools: social networks and business networks (Brown, Mawson & Rowe, 2018). Business networks involve firms that have connections, both direct and indirect, with other businesses and non-business organizations (Snehota & Håkansson, 1995). On the other hand, social networks are confined to an individual and have an immediate impact on their interests, intentions, and decision-making processes (Granovetter, 1973). Scholars of social networks are concerned with how the individual's social level relates to the network of people they primarily interact with, such as family, friends, and acquaintances (Sequeira et al., 2007). The evolution of business relationships is based on the relationships between the parties involved (Holm, Eriksson & Johanson, 1996). A business network is considered a web of interconnected exchange relationships where firms interact with each other for business purposes (Halinen & Jokela, 2016). Social networks consist of both weak and strong ties and serve as a means to reduce transaction costs, risk, and increase access to business ideas, capital, and information (Aldrich & Zimmer, 1986). The concept of weak ties refers to formal, non-affective relationships such as those with business contacts or community organizations. These relationships provide access to specialist advice and other resources that impact the success of an enterprise. On the other hand, strong ties are crucial in socializing towards entrepreneurship, as they offer exposure to the necessary skills, knowledge, and information required to start a business. Discursive elements, such as open discussion in a learning environment, can foster active learning and play a significant role in shaping entrepreneurial intentions

(Laurillard, 2002; Garvin, 1991). Entrepreneurial networking opportunities are becoming increasingly popular as a means to create and manage new ventures through learning and networking (Soetanto, 2017). The importance of networking in shaping intentions and the impact of role models on entrepreneurial learning are also areas of growing interest in the entrepreneurship literature (Laviolett et al., 2012; Wang & Chugh, 2014). Muller (2008) suggests that entrepreneurial networking can influence subjective norms and intentions, and Soetanto (2017) emphasizes that the significance of networks in entrepreneurial learning has been previously overlooked. This research will examine the impact of networks on intention.

2.6 Role models

The entrepreneurial behavior and perspectives of new graduates are shaped by a combination of personal and environmental factors. Studies have shown the impact of role models on various aspects of entrepreneurial activities and situations in the individual's surroundings (Begley et al., 1997). Cultural values and norms, which are transmitted through role models, have a significant effect on entrepreneurial attitudes, intentions, and behavior (Fayolle, Basso & Bouchard, 2011; Hayton, George & Zahra, 2002; Turker & Sonmez Selcuk, 2008). Personal and environmental factors play a crucial role in shaping the entrepreneurial behavior and outlook of graduates. Researchers have established a connection between the social status of entrepreneurial activities and situations in the student's environment and their impact (Schmitt & Rodermund, 2004). Cultural norms, morals, and rules can manifest themselves in the form of entrepreneurial attitudes, intentions, and behavior (Fayolle, Basso & Bouchard, 2011). The family, particularly parents, play a crucial role in shaping entrepreneurial aspirations (Benzing et al, 2009; Harvey, 2008; Smallbone et al., 2010). However, the literature lacks sufficient information on how previous entrepreneurial experience affects the influence of an entrepreneurship education program on a student, according to Fayolle and Gailly (2015). Muller (2008) highlights that role models can influence participants' attitudes, perceptions, and intentions. The presence of entrepreneurs in a student's network or direct access to entrepreneurs through a course can influence their intentions, making a course with a focus on role models or the introduction of entrepreneurs more attractive to students (Muller, 2008). It is essential to keep these questions in mind while designing entrepreneurship courses.

2.7 Business plan activities

The capability of students to put their knowledge into practice is a key aspect of adaptation. According to Elmore (1991), knowledge only becomes useful when it is acquired through solving concrete problems. This is significant in entrepreneurship education as the primary goal is to teach students how to apply their knowledge in real-life scenarios. One way this is achieved is by developing a business plan, as demonstrated by a study by Bell and Bell (2016). Their research showed that experiential learning, such as creating a business plan, yields benefits in both business and entrepreneurial skills,

with a particularly strong impact on students' confidence and belief in their entrepreneurial abilities. Entrepreneurial learning through business plan activities in entrepreneurship education is supported by Duval-Couetil et al. (2016). The effectiveness of using business plans in entrepreneurship education has been discussed in the literature by Jones & Penaluna (2013) and in general entrepreneurship literature by Burns (2011), who argues that a business plan is crucial for presenting evidence to potential investors and serves as a guide for successful business management (Zimmerer & Scarborough, 1996). Although the use of a business plan is acknowledged to promote business growth (Kinsella et al., 1993), the number of entrepreneurs who utilize it has not been well documented (Bewayo, 2010). Alternative methods for business creation, such as intuitive and logical exploratory approaches, have also been proposed (Bridge & Hegarty, 2012).

2.8 Reaction

The role of interactive elements in effective learning is recognized in the literature (Laurillard, 2002). Garvin (1991) supports this view, arguing that learning is influenced by students' experiences and interests. Laurillard (2002) highlights that feedback is an integral part of interaction and reflection, allowing students to reflect and make adjustments if necessary. According to Scott (2014, p.49), there is no universally accepted definition of feedback in academia, and most definitions remain teacher-centered, even in the current era of student-centered learning. Feedback is a tool for continuous improvement that can be given at various stages, but students must take action before it can be effective. Assessment and evaluation are crucial to the quality cycle of teaching and learning and should be taken seriously. Tummons (2007) notes that the evaluation of assessment involves evaluating its effectiveness, while appropriate assessment methods, such as formative and descriptive assessment, provide learners with information and opportunities for growth. Muller (2008) suggests that feedback during the course may impact students' motivation to start a business.

3. Research methodology

In the research methodology section, we described the steps we took to collect and analyses the data. We started with a descriptive analysis to understand the characteristics of our sample. Then we examined the correlations between the constructs for the measurement model. To assess the validity of the measurement model, we conducted a confirmatory factor analysis (CFA) for all constructs. This process allowed us to determine whether the items actually measure the concepts they claim to measure. Next, we tested the structural model using a path model. This model allowed us to examine the causal relationships between the variables in our study. Finally, we tested hypotheses for the causal effect of the exogenous variable on the endogenous variable using appropriate statistical techniques.

4. Results and discussions

4.1. Descriptive analysis

It is important to perform another review of the data using descriptive statistics to check for the presence of extreme values. This is typically done for categorical data such as gender, age, and nationality (as shown in Table 1) by using frequency analysis to identify any issues such as unreasonable values or continuous data ranges. The calculation of the mean value is crucial in determining the validity of the data being analyzed.

Table 1: Profile of students (n = 403)

Profile	Grouping	No. (n)	Percentage
Age	Less than 20 years	9	2.0
	21 - 30 years	275	68.75
	31 - 40 years	59	14.75
	41 - 50 years	45	10.75
	51 years to go	15	3.75
Gender	Male	204	50.6
	Woman	199	49.4
Profession	Illiterate	10	2.5
	Bac	30	7.5
	Bac +3	210	52.1
	Bac +5	121	30.4
	More than 5 years of higher education	32	8.5

This table provides a demographic profile of 403 students with respect to their age, gender, and educational background. The first column presents the profile, the second column defines the categories, and the last two columns display the number (n) and percentage of students in each profile. The data shows that the majority of students fall in the age range of 21 to 30 years old, making up 68.75% of the total. The distribution of gender is nearly even, with 50.6% being male and 49.4% female. With regards to education, the largest group holds a university degree +3 (52.1%), followed by those with a degree +2 (30.4%), and the smallest group holds a higher degree than a Bachelor's (8.5%). (Table 1)

4.2. Validity of constructs

Table 2: Correlations between constructs for the measurement model

	CR	AVE	MSV	SN	PBC	INT	EN	RM	BP	FB	ATT
SN	0,840	0,557	0,973	0,746							
PBC	0,871	0,533	0,772	-0,005	0,730						
INT	0,896	0,633	0,749	0,049	0,836***	0,796					
EN	0,865	0,587	0,817	0,007	0,831***	0,865***	0,698				
RM	0,869	0,596	0,873	-0,012	0,934***	0,642***	0,904***	0,704			
BP	0,753	0,548	0,061	0,154**	0,096+	0,205***	0,154**	0,031	0,669		
FB	0,620	0,571	0,973	0,987***	0,030	0,167*	0,114+	0,057	0,247**	0,609	
ATT	0,891	0,576	0,873	0,010	0,878***	0,794***	0,883***	0,934***	0,106+	0,088	0,613

According to Awang (2012), the bold diagonal values in the table represent the square root of the AVE for the construct, and the other values are the correlation between the related constructs. Discriminant validity is achieved when the bold diagonal value for a construct is greater than the values in its corresponding row and column.

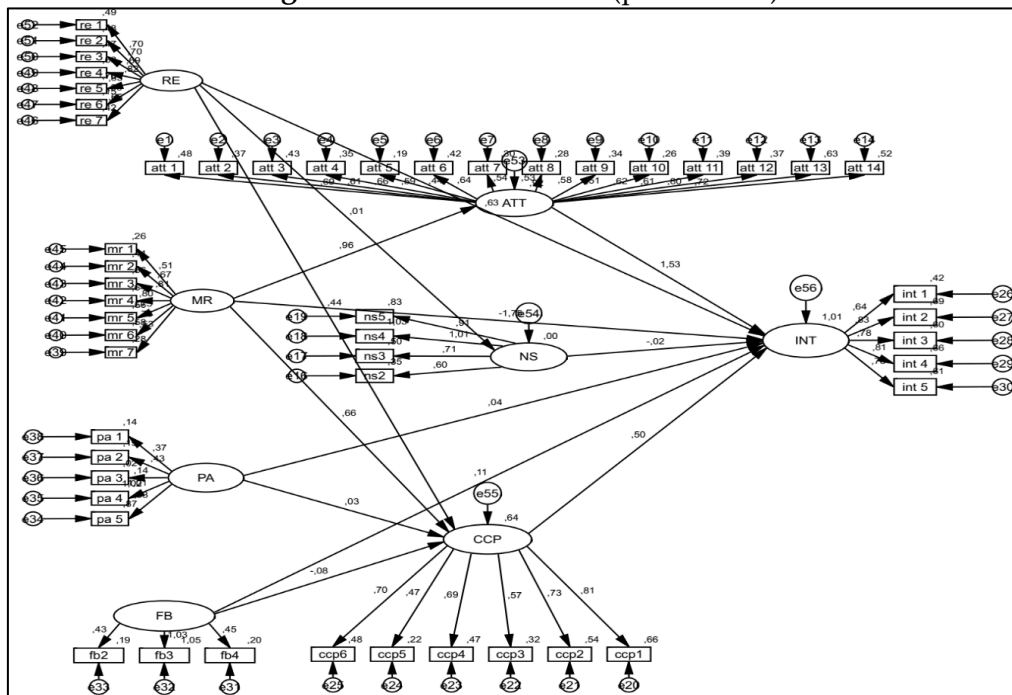
Table 3: Summary of confirmatory factor analysis (CFA) for all constructs

Variables	Cronbach's Alpha (> 0.7)	CR (≥ 0.6)	AVE (≥ 0.5)
Subjective Norm (SN)	0,827	0,840	0,557
Perceived Behavioural Control (PBC)	0,868	0,871	0,533
change of intention (INT)	0,891	0,896	0,633
Entrepreneurial Network (EN)	0,860	0,865	0,587
Role Model (RM)	0,865	0,869	0,496
Business Plan (BP)	0,760	0,753	0,548
Feedback (FB)	0,702	0,620	0,571
Attitude (ATT)	0,893	0,891	0,576

The change in intention of respondents is calculated by taking the difference between the post-intention and the pre-intention of the individual construct intention indicators. Formula applied:

$$\text{Post-intention constructs} - \text{Pre-intention constructs} = \text{Change in intention.}$$

Figure 1 : Structural model (path model)



The standard regression weights of the relationship between entrepreneurial network role models, business plans, feedback, attitudes towards behavior, subjective norms, perceived behavioral control, and entrepreneurial intention are displayed in

Figure 1. The results of the hypothesis tests for the model in Figure 2 are presented in Table 4. The study reports on the causal effect between the exogenous variables (entrepreneurial network, model, business plan, and feedback) and the endogenous variables (attitudes towards behavior, subjective norms, perceived behavioral control) on entrepreneurial intention. (Awang, 2012)

Table 4: Hypothesis test for the causal effect of the exogenous variable on the endogenous variable

			Coefficient	H.E.	C.R.	P	Label
SN	<---	EN	0,007	0,032	0,214	0,831	
PBC	<---	EN	0,425	0,076	5,572	***	SIGN
PBC	<---	FB	-0,234	0,114	-2,047	0,041	SIGN
PBC	<---	BP	0,023	0,030	0,755	0,450	
PBC	<---	RM	1,065	0,145	7,321	***	SIGN
ATT	<---	RM	1,716	0,172	9,954	***	SIGN
INT	<---	EN	0,457	0,060	7,674	***	SIGN
INT	<---	FB	0,243	0,089	2,738	0,006	SIGN
INT	<---	BP	0,023	0,018	1,264	0,206	
INT	<---	MR	-2,155	0,563	-3,829	***	SIGN
INT	<---	PBC	0,383	0,063	6,081	***	SIGN
INT	<---	SN	-0,024	0,044	-0,530	0,596	
INT	<---	ATT	1,051	0,304	3,460	***	SIGN

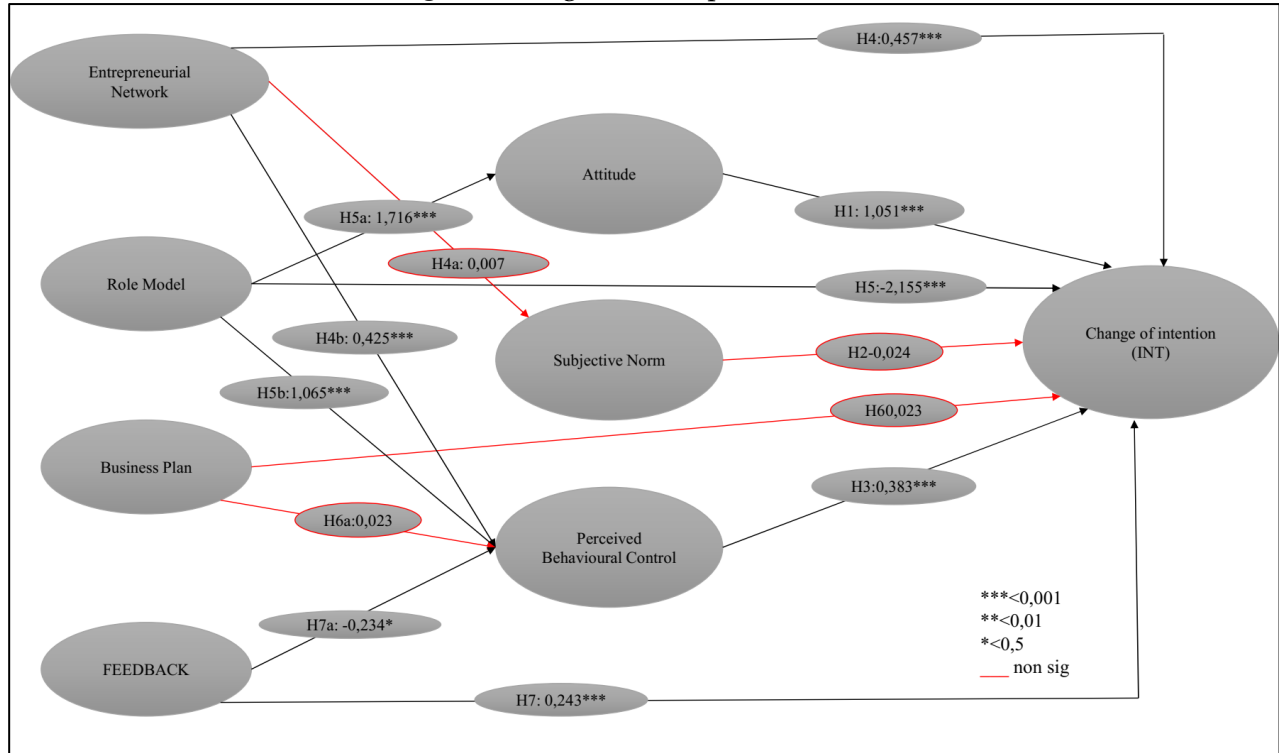
Note: 1. *** p = 0.001, S.E = Standard Error and C.R = Critical Ratio

The standard regression weight reflects the extent of variation in the dependent variable that results from a one standard deviation shift in the predictor variable. For instance, the estimated value for the relationship between Intention and Attitude towards behavior is 0.383, indicating that a one standard deviation increase in Intention leads to a 0.383 standard deviation increase in Attitude towards behavior. It's worth mentioning that the values for the standard regression weights across all variables in the model fall within the range of -2.15 to 1.7.

This study evaluates the impact of various factors, including entrepreneurial networks, role models, business planning, and feedback (components of entrepreneurial education), attitude towards behavior, perceived behavioral control, and subjective norm (aspects of entrepreneurial behavior), on students' intention to become involved in business and start their own ventures. It revisits and assesses the results of previous literature on these hypotheses. The primary data analysis shows six key findings: 1) there is a significant relationship between the entrepreneurial network and changes in intention, 2) the presence of an entrepreneurial network has a positive effect on the intention to start a business, which is moderated by perceived behavioral control, 3) the inclusion of role models in entrepreneurial education positively influences participants' intention to start a business, 4) the introduction of role models have a negative effect on the intention to start a business, which is moderated by perceived behavioral control, 5) business planning activities have a positive effect on the intention to start a business,

which is moderated by perceived behavioral control, and 6) feedback has a positive impact on the intention to start a business, which is moderated by perceived behavioral control.

Figure 2: Original conceptual model



5. Conclusion

In conclusion, this study examines the influence of different factors on students' intention to start their own businesses. The results show that the entrepreneurial network, role models, business planning and feedback have an influence on the intention to start a business.

However, these influences are mediated by perceived behavioural control. Therefore, it is important to take perceived behavioural control into account when training entrepreneurs. The findings of this study make an important contribution to understanding the influence of different factors on the intention to start a business and can be used to develop more effective training programmes for future entrepreneurs.

Conflict of Interest Statement

I certify that I have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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