The role of human capital on entrepreneurial intentions among university students graduates

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Abstract:
This study examines the relationship between human capital (HC) and entrepreneurial intention (EI) among university students. A sample of 100 graduate from the university of Tahri Mohamed Bechar was surveyed to gain a better understanding of this relationship. Structural equation modeling was used with the help of SmartPLS 4.0 to analyze the data.
The study first assessed the Theory of Planned Behavior (TPB) in the Algerian context and found that the variable with the greatest impact on EI was the attitude toward entrepreneurship (ATE). The study also found that both social norms (SN) and perceived behavioral control (PBC) have an effect on EI.
Next, the study investigated the relationship between HC and EI. It found that HC does not have a direct effect on EI but does influence EI through the TPB indicators, specifically through PBC and ATE.
***Key Words*:** Entrepreneurial intention, event model, human capital, theory of planned behavior, university students.

JEL Classification : L26, M12.

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Introduction:

Entrepreneurship has become a critical aspect of economic strategies in recent years. Policymakers and researchers alike recognize its significant role in both developed and developing countries (Elnadi & Hani Gheith, 2021). particularly its contribution to economic growth and reducing unemployment and poverty rates through the creation of new ventures (Smith & Chimucheka, 2014). Researchers argue that for the entrepreneurial process to complete in the form of starting and managing new businesses it must first start as an entrepreneurial intention that will eventually translate into entrepreneurial action (Ali et al., 2019). However, this action requires enormous support from governments to make a friendly environment for entrepreneurs to grow, through the adaption of programs and tools to promote the entrepreneurial culture and to the mindset of entrepreneurs among society.

Despite all the efforts to making a supportive environment for entrepreneurs to create their businesses, starting a new business remains a very

hard task full of obstacles and challenges, and for new start-ups to emerge it requires access to different types of resources tangible in a matter of financing (venture capital) and intangible such as training knowledge and expertise (Castro et al., 2014). In our research we will try to understand the role of intangible resources like human capital in this process. Several recent reviews of the entrepreneurship and human capital literature have highlighted the positive link between these two aspects (Manev et al., 2005; Unger et al., 2011). In his book investment in Human capital, Schultz defines Human capital as the combination of knowledge and skill and other components that contribute to the success of firms by providing productive work (W. Schultz, 1980). Other scholars also emphasize the critical role of human capital in various stages of the entrepreneurial process. For instance, management skills and experience are considered essential for securing investments, and they are among the most frequently used selection criteria of venture capitalists (Unger et al., 2011). Moreover, there is a growing interest in the significance of human capital, and many theories within the entrepreneurship literature attempt to establish links between human capital attributes and entrepreneurial success (Marvel et al., 2016) .

In this study, we will investigate the relationship between human capital and the entrepreneurial intention of university students, with a focus on the phase preceding start-up creation. Given the insufficient results of Algerian government policies aimed at supporting university students, we seek to understand the reasons behind the lack of entrepreneurial intention among this category. This study will address the following problem **"to what extent does human capital affect entrepreneurial intention among university students".**

Based on our presumption of the problematic and how our variables react we proposed the following hypotheses:

- H1: perceived attitude toward entrepreneurial behavior positively affects the entrepreneurial intentions of university students.
- H2: university students perceived subjective norms positively affects their entrepreneurial intentions.
- H3: students perceived behavioral control positively affects entrepreneurial intentions.
- H4: graduate's human capital positively directly influences entrepreneurial intentions.
- H5: graduate human capital positively and indirectly influences entrepreneurial intentions through A.T.E.
- H6: graduate human capital positively and indirectly influences entrepreneurial intentions through S.N.
- H7: graduate human capital positively and indirectly influences entrepreneurial intentions through P.B.C.

I. Literature review and theoretical framework:

1. Entrepreneurial intention (EI):

Entrepreneurship is a phenomenon that includes a variety of disciplines and integrates multiple theories to explain it. What is entrepreneurship? This question has been asked by many researchers in the past decades, according to (Lazear, 2005) entrepreneurship is a process that consists of organizing different factors of production of human and information resources and doing so efficiently. If we can define entrepreneurship as a process then the most important step is the start, every action begins with the intention and without it, nothing will happen the entrepreneurial intentions are the starting point of the entrepreneurial process. According to (Pihie & Bagheri, 2009) entrepreneurial intention is a set of mind that influences entrepreneurial behavior. while (Bird,1988)describes entrepreneurship intention as "a state of mind directing a person's attention (and therefore experience and action) toward a specific object (goal) or a path to achieve something (means)". The objective in this case is either starting a new venture or creating a new value in an existing business. Different theories tried to explain the entrepreneurial intention model the most common among them is Ajzen's "theory of planned behavior (TPB)", and the "entrepreneurial event model" of Shapero and Sokol.

1.1. Theory of planned behavior (TPB)

First, in Ajzen's theory of planned behavior, a core component of the theory is the intention to perform a given behavior. The intention is the explanation of how hard individuals are willing to give in order to perform the behavior(Ajzen, 1991). According to TPB behavior is predicted via intention through three independent determinants (Haus et al., 2013) every one of them is drawn from previous theory and proven evidence:

- **Attitude Toward Entrepreneurship Behavior (ATE)**: if applied to entrepreneurship it reflects the outcome if a person considers starting a business and its perceived desirability (measuring a person's recognition of entrepreneurial behavior attractiveness).
- **Subjective Norm (SN)**: represents the perceived social expectation formed by individuals who are strongly related to the person (the indication of the social stress and acceptance of entrepreneurial behavior).
- **Perceived Behavioral Control (PBC)**: "it is defined as the perceived ease/difficulty (control) of successfully performing a behavior, which can be influenced by experience, modeling, expected support, and potential obstacles" the indication of the person's capabilities competencies, and experience to overtake the entrepreneurial behavior (Thompson et al., 2012).

1.2. Event Model

Secondly, the event model of Shapero and Sokol is similar to the theory of planned behavior, according to Shapero for a person to take an entrepreneurial action he must first perceive it as a credible wish means that starting a new business have to be both feasible, and desirable (Krueger & Carsrud, 1993). In

addition, he took into consideration relative event that influences individuals' lives such as (unemployment, divorce, etc.….) and any emotional or physical breakdown that could affect the life of the potential entrepreneurs. In general, Shapero figures out three main determinants of entrepreneurial intention (Elnadi & Hani Gheith, 2021):

- **Perceived desirability:** it is similar to the Ajzen measures of the behavior's personal attractiveness. The perceived desirability describes the attractiveness level of creating a new business, it's considered a motivational aspect to the entrepreneur and it can be influenced by multiple factors the net profit to be gained, the social status of a successful entrepreneur, and other elements (Boukamcha, 2015).
- **Perceived feasibility:** it corresponds to perceived behavioral control and refers to the entrepreneur's capability to realize his project. The feasibility of starting a new business is mainly dependent on the competency and skills of the entrepreneur (Ul Hassan & Fatima, 2013), the confidence that he will gain from believing in his capability to face the potential challenges of starting a new venture will be transferred into an intention and therefore into an entrepreneurial behavior.
- **Propensity to act:** Krueger associates the propensity to act with the locus of control, it is mainly linked to initiating, and maintaining goal-directed behavior (Krueger & Brazeal, 1994). This behavior generally describes starting a business or sizing an opportunity as the ultimate goal that needs action in order to complete.

2. Human capital

2.1. The concept of human capital

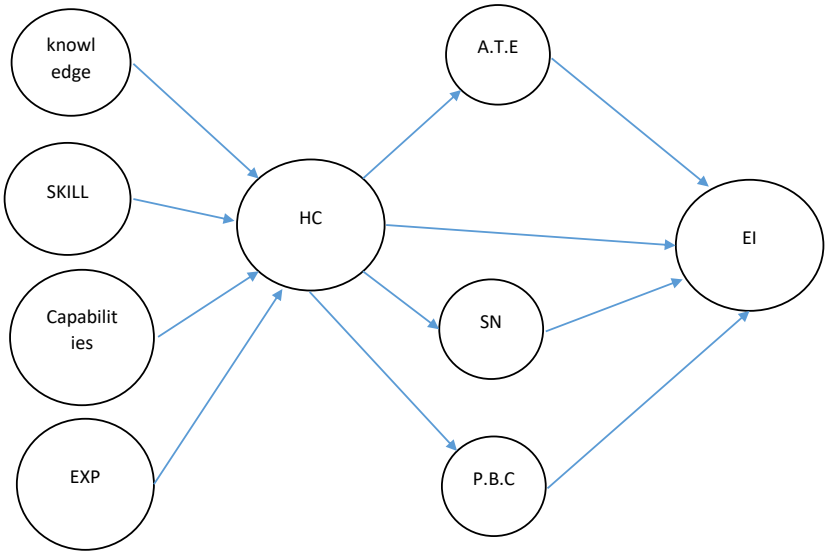
The concept of human capital was largely opposed at the beginning by many liberal academicians at the time, for the fact that they refuse for a man to look at himself as a capital good. This misunderstanding of the concept was overcome by the contribution of scholars such as Adam Smith, H. von Thiinen, and Irving Fisher (T. W. Schultz, 1961), these distinguished names in addition to Schultz and Becker who made the first steps in bringing human capital theory to light.

Human capital is defined as a set of skills, knowledge, and expertise possessed by individuals throughout (formal and informal) education, on-the-job training, and other means of development, these skills, and knowledge will increase the person's productivity and therefore leading to an increase in his or her wages(Caire & Becker, 1967; T. W. Schultz, 1961)(Tan, 2014). In recent years researchers have applied human capital theory in many different fields, entrepreneurship is one of the fields that benefit greatly from the applications of that theory. Entrepreneurs have always been seen as extraordinary persons, who have distinguished attributes in their personalities. Nevertheless, this classic point of view has limited entrepreneurship to an innate trait that individuals are born with such as age gender race, and personality. These aspects of entrepreneurs have been the major concern of many scholars in the beginning, but it is clear that in order to study the

entrepreneurial phenomena you must include learning in this equation. The need for entrepreneurial education in addition to skills and experience has become a vital part of the process of forming capable individuals(Madsen et al., 2003). Human capital can be divided into two categories: general and specific human capital, both of these dimensions are important in different stages of the entrepreneurial process. In our study, we will focus on the early stages of creating a business, regarding general human capital it has known that formal education enhances individuals' abilities to detect and exploit opportunities. Adequate learning in a matter of technologies and organizational skills provides entrepreneurs with a higher ability to solve problems and therefore make the decision of creating a new startup(Baptista et al., 2014). Another aspect that can be affected by higher education is the quality of social capital gained through many years in the educational system. Numerous researchers linked strong social capital and developing entrepreneurial intention(Moog & Backes-Gellner, 2009). On the other hand, Specific human capital includes work experience and industry-specific experience for example managerial experience in general and especially in the industry where the entrepreneur is considering starting a business can be very effective in a matter of success and survival(Baptista et al., 2014). Therefore, individuals with a previous experience in the same industry will gain confidence from their knowledge (specialized market and technological knowledge, a network of technical and social contact that can facilitate the starting phase of the enterprise, a relationship with clients, suppliers, and possible investors) to start a new business. Another form of specific human capital is the entrepreneurial experience, which means people who have created at least one business before, and includes portfolio entrepreneurs (entrepreneurs who won several enterprises at the same time). Individuals with past entrepreneurial experience possess better managerial and technical skills these skills and knowledge make the person better equipped to detect and benefit from market opportunities.

Based on the theoretical part of the study we present the following model.

Fig. 1: « Research Model »



Source: elaborated by the authors based on the theoretical frame work

II.Empirical study

1. Sample analysis

The empirical analysis was conducted on a sample of students, including some individuals in post-graduation PhD programs. Out of the 130 questionnaires distributed among the target population, 100 were returned and analyzed. Most prior studies on entrepreneurial intentions have focused on university students, but we chose to study students in order to understand how the phase after graduation impacts entrepreneurial intentions, especially in the matter of human capital accumulation, both positively and negatively. This also allowed us to control the influence of education and experience level on entrepreneurial intentions.

Results: First, we begin by describing the socio-demographic aspects of our sample.

Table 1: « demographic information of our sample »

Variable	Item	Frequency	Percent
Gender	Male	57	57
	Female	43	43
Age	From 18 To 23	14	14
	From 23 To 29	32	32
	Above 29	54	54
Degree	bachelor's	30	30
	Master's	56	56
	Post Graduate	14	14

Source: made by the researchers using SPSS 25

Table 1 presents a breakdown of the demographic characteristics of the sample population. Our data indicate that the proportion of male participants is 57%, while the proportion of female participants is 43%. The age category that is most heavily

represented in the sample is individuals aged 29 or older, constituting 54% of the sample. This is consistent with our focus on employed individuals, as the majority of these individuals tend to be above the age of 26.

Additionally, Table 1 provides information on the level of education among the participants in our sample. It can be seen that 56% of the participants hold a master's degree, with the remaining 44% holding other levels of education. This result can be partially attributed to the increasing accessibility of higher education programs for individuals who are employed, a phenomenon that was frequently encountered in the course of our study.

Table 2: « work and experience »

Variable	Item	Frequency	Percent
Job	Employed	83	83%
	Unemployed	17	17%
Years of experience	From 1 to 5	39	47%
	From 6 To 10	30	36%
	above 10	14	17%
Type	public	63	76%
	private	20	24%

Source: made by the researchers using SPSS 25

Table 2 provides information on the employment status and experience of the participants in our sample population. The data reveals that most respondents have previous work experience, with 47% having 1 to 5 years of experience. Furthermore, the majority of the participants in our sample worked in public companies owned by the Algerian government.

2. Assessment of measurement model

In evaluating our measurement model, first, we begin by examining the reliability of the variables and their persistence over time. Subsequently, we assess the convergent validity of the model through the calculation of: Outer loading; Composite reliability; Average Variance Extracted (AVE) .

These assessments assist in determining the correlation between the latent variables and the observable variables as anticipated.

Finally, we assess the distinction of the variables by verifying their discriminate validity through: Cross-loading ; Fornell-Larcker criterion.

2.1. Validity and reliability

In order to test the validity and reliability of our questionnaire we used IBM SPSS 25 program, by calculating Cronbach's Alpha, we found it equal to 0,948 which is much bigger than 0.7. This means that there is an excellent internal consistency in the scale we used to measure our variables.

2.2. Convergent validity

The factor loading measurement presented in the appendix A displays positive results with regard to the robustness of the measurement model. All of the indicators exhibit factor loadings greater than 0.5, indicating strong to moderate

correlations between the indicators and their respective factors. This reinforces the reliability of the model.

Furthermore, the analysis of the AVE values reveals that all of them are above 0.5, suggesting moderate to strong relationships between the indicators and their corresponding latent variables. This is further supported by the high composite reliability scores, which are all above 0.8. This demonstrates a high level of internal consistency for all latent variables, indicating that the measurement model is robust and the variables are well-defined.

It should be noted that the only variable with a value slightly below the commonly accepted cut-off point is the Skill, with an AVE score of 0.499 and composite reliability of 0.799. However, as stated by (Hair & Alamer, 2022), this can be significant in certain circumstances, such as when the sample size is small or in social sciences and exploratory studies.

2.3. Discriminant validity:

Discriminant validity is a crucial aspect of construct validity assessment in the field of Structural Equation Modeling (SEM). It determines the extent to which a construct measures a distinct and unique latent variable, independent of any variables that may be correlated with it. This important measurement is accomplished through the utilization of two tests: the Cross-loading test and the Fornell-Larcker criterion. These tests provide valuable insights into the quality of the construct and its ability to accurately measure what it is intended to measure, without contamination from other related variables.

a) **Cross loading:** it can be identified by calculating the factors loadings of the indicators on each construct.

As shown in appendix B all items are appropriately loaded onto their respective latent variable, as evidenced by the higher factor loadings of each item onto its intended latent variable in comparison to its loadings onto all other latent variables.

b) **Fornell & Larcker criterion:** a latent variable indicator should explain better the variance of its indicators than the variance of other latent variables.

Table 5: « Fornell & Larcker criterion »

	A.T.E	E.I	Knowledge	P.B.C	S.N	capabilities	experience	skills
A.T.E	**0.82**							
E.l	0.726	**0.849**						
Knowledge	0.493	0.464	**0.773**					
P.B. C	0.657	0.688	0.506	**0.798**				
S.N	0.41	0.432	0.199	0.258	**0.818**			
capabilities	0.431	0.367	0.554	0.579	0.128	**0.722**		
experience	0.475	0.447	0.535	0.521	0.211	0.631	**0.714**	
skills	0.39	0.34	0.563	0.455	0.038	0.583	0.62	**0.706**

Source: made by the researchers using Smart PLS 4

In this matrix, the diagonal entries signify the square of the multiple correlations between each indicative variable and its corresponding construct. A high correlation, indicated by a value close to 1, suggests a strong discriminant validity,

whereas a low correlation, indicated by a value close to 0, indicates weak discriminant validity. The findings reveal that the values along the diagonal are greater than those off the diagonal, indicating the presence of discrimination among latent variables. It is noteworthy that while there are strong correlations between Entrepreneurial Intention (EI) and Perceived Behavioural Control (PBC) with Attitude Toward Entrepreneurship (ATE), they are still smaller in comparison to their own diagonal values.

2.4. Assessment of structural model

The evaluation of the structural model pertains to the systematic examination of the validity and reliability of a model that symbolizes the interconnections between the variables within a system. This evaluation encompasses a range of metrics, including:

- Path Coefficient
- Coefficient of Determination (R2)
- Effect Size (F2)
- Predictive Relevance (Q2)
- Goodness of Fit (GOF).

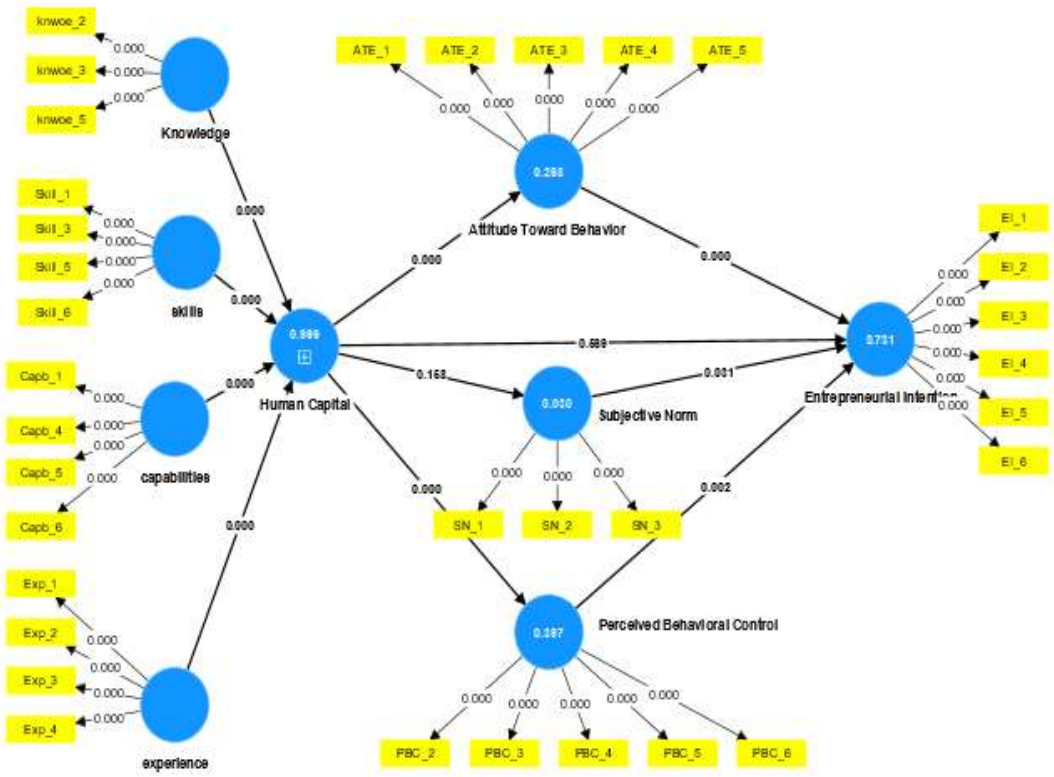
a. Path coefficient: Hypotheses test: In order to verify our hypotheses, we conducted a thorough analysis of the path coefficient, utilizing T-values and P-values as our parameters of evaluation. As per the guidelines stipulated by(Hair & Alamer, 2022), the T-value must be greater than 1.96 and the P-value must be less than 0.05. We utilized the bootstrapping method with a sample size of 5000 in the Smart PLS program to arrive at our results, which are provided below in regards to our hypotheses.

Table 6: « Path coefficient »

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values	Hypotheses relationship	Results
A.T.E -> E.I	0.617	0.613	0.081	7.662	0.000	Positive	TRUE
P.B.C -> E.I	0.276	0.278	0.09	3.061	0.002	Positive	TRUE
S.N -> E.I	0.114	0.118	0.053	2.159	0.031	Positive	TRUE
H.C -> E.I	-0.036	-0.036	0.063	0.57	0.569	Positive	FALSE
H.C -> S.N -> E.I	0.02	0.021	0.018	1.127	0.260	Positive	FALSE
H.C -> P.B.C -> E.I	0.174	0.178	0.063	2.754	0.006	Positive	TRUE
H.C -> A.T.E -> E.I	0.337	0.34	0.066	5.099	0.000	Positive	TRUE

Source: made by the researchers using Smart PLS 4

Fig. 1: « Path cofficient model »



Source: made by the researchers using Smart PLS 4

Based on the data analysed from Table 06, it is evident that there exists a statistically significant positive relationship between Attitude toward Entrepreneurship, Perceived Behavioural Control, and Subjective Norm, with Entrepreneurial Intentions. This conclusion is supported by the T-values and P-values which meet the criteria established by Hair et al. (2014), wherein T-values must be greater than 1.96 and P-values must be less than 0.05.

Furthermore, our findings do not support the existence of a direct effect of Human Capital on Entrepreneurial Intentions, or indirectly through the Subjective Norm. Instead, our results indicate that Human Capital exerts an indirect effect on Entrepreneurial Intentions through its impact on Perceived Behavioural Control and Attitude toward Entrepreneurship.

In consideration of these results, we accept Hypotheses 1, 2, 3, 5, and 7, as they conform to the established criteria of T-values greater than 1.96 and P-values less than 0.05. However, we reject Hypotheses 4 and 6 due to the fact that their P-values are less than 1.96 and their T-values are greater than 0.05.

b. Coefficient of determination R2 : The results of the R2 test performed on SPLS 4 were found to be 0.731, indicating that the indicators utilized in our study account for 73.1% of the information related to Entrepreneurial Intentions. In accordance with the classification proposed by (Chin, 1998), an R2 value above 0.67 is considered high, while a value ranging from 0.33 to 0.67 is considered

moderate and a value between 0.19 to 0.33 is considered weak. As our R2 value of 0.731 falls above the threshold of 0.67, it can be deduced that our model demonstrates a high level of representation.

c. The effect size F2: The F^2 test serves as a means to assess the validity and reliability of a structural equation model. A higher F^2 value reflects a superior fit of the model to the empirical data and a stronger association between the independent and dependent variables in the system. As per the guidelines established by(Cohen, 2013), an Effect Size Indicator greater than 0.35 is considered substantial, while an indicator ranging from 0.15 to 0.35 is considered moderate, and an indicator between 0.02 and 0.15 is considered minimal. Indicators lower than 0.02 are considered to have no effect size. The results of our F^2 test are presented in Table 07.

Table 7: « effect size »

	Entrepreneurial Intention	Results
Attitude Toward Behavior	0.679	Large
Human Capital	0.003	no effect
Perceived Behavioral Control	0.131	Small
Subjective Norm	0.04	Small

Source: made by the researchers using Smart PLS 4

d. Predictive Relevance (Q2): According to (Henseler & Chin, 2010) The Q^2 can be used to evaluate the predictiveness of the model researchers can assess the quality of their models and determine whether it's effective to take a future decision there is no agreed or known cut-off value of Q^2, however, according to (Fornell & cha, 2010) Q2 should be above 0.

Our results show a Q2= 0,22 which means that our study has a moderate predictive ability of the EI.

e. Goodness of fit (GOF): The measurement of GOF indicate how well the model fit the observed data, it can be calculated by multiplying the geometric mean of both average AVE and the average of R^2

$$GOF = \sqrt{\overline{R^2} \times \overline{Av}E}$$

After calculating GOF of our model we found it equal to 0,531 this indicate that our model is largely sufficient.

3. Discussion

3.1. The relation between ATB, SN, PBC and EI

Our results show that all of the TPB indicators have a positive relationship with entrepreneurial intention. It shows be noted that based on our finding ATB has the largest impact on IE this result came consistent with previous studies such as (Fayolle & Gailly, 2008; Krueger Jr & Brazeal, 1994) In addition, the PBC effect on EI was also shown in previous studies. For instance, the studies of (Bird, 1988b; Gimeno et al., 1997; Kautonen et al., 2013) found that PBC is positively related to EI among students in the United States and Finland. These findings support the

results that we have found and highlight the role played by PBC in the prediction of EI. The least effect between TPB indicators and EI was conducted by subjective norm, and in many studies, it was found to be either small or moderate or in some cases it was influenced by other factors such as (innovation, cultural aspects, etc). In other word, it clear that the social pressure conducted by the society can differ from place to another for example studies that were conducted in conservative communities such as China, North Africa they generally encounter a weak to moderate relationship between the two variables for example the studies of (Liu, Y., & Wong-On-Wing, B. , 2008) and (Li, H., & Tang, Z, 2010) both of the studies confirm that in conservative societies SN tend to have a moderate relationship with IE. On the contrary to studies such as (Kolvereid, 1996) (Baum, J. R., & Locke, E. A, 2004) (Fayolle, A., Gailly, B., & Lassas-Clerc, N, 2006) these studies did not find any significant relationship between SN and EI due to the fact that it was conducted in Europe a more open society.

Our findings shows that all the constructs of the TPB have a positive correlation with EI. Among the TPB indicators, ATB was found to have the largest impact on EI, which is consistent with previous studies such as (Fayolle & Gailly, 2008; Krueger Jr & Brazeal, 1994). The effect of PBC on EI has also been noted in previous studies, including (Bird, 1988b; Gimeno et al., 1997; Kautonen et al., 2013) who found that PBC had a positive impact on EI among students in the United States and Finland. These prior studies support our findings and emphasize the importance of PBC in predicting EI.

However, our results indicate that subjective norm had the least effect on EI among the TPB indicators. This finding is consistent with prior research, which has found that the relationship between subjective norm and EI is either weak or moderate and can be influenced by other factors such as innovation, cultural aspects, and so on. For instance, studies conducted in more conservative societies, such as China and North Africa, have generally found a weak to moderate relationship between subjective norm and EI (Liu, Y., & Wong-On-Wing, B. , 2008) (Li, H., & Tang, Z, 2010). On the other hand, studies conducted in more open societies, such as Europe, have not found a significant relationship between subjective norm and EI (Kolvereid, 1996) (Fayolle, A., Gailly, B., & Lassas-Clerc, N, 2006) (Baum, J. R., & Locke, E. A, 2004). These findings suggest that the social pressure exerted by society can vary from place to place.

3.2. The relationship between HC and EI:

The relationship between HC and EI has been extensively studied in the field of entrepreneurship. Numerous scholars have attempted to explore the influence of HC on EI, with conflicting results.

Based on our study, we found that HC has no direct effect on EI. However, it can play a significant role in shaping the entrepreneurial mindset through its influence on attitudes toward entrepreneurship and the perception of control over necessary resources and skills.

Furthermore, our findings concur with previous research (Liñán et al., 2009; Zhao et al., 2005) that HC does not have a significant impact on EI through SN. This

suggests that the perceived expectations of the entrepreneur's social network with regard to entrepreneurship do not play a role in the formation of entrepreneurial intentions.

In conclusion, our results contribute to the ongoing debate surrounding the relationship between HC and EI, and emphasize the importance of considering the mediating effects of attitudes and perceived control when exploring the influence of HC on EI.

Conclusion

In this article, we sought to discover a new application of entrepreneurial intention by applying Ajzen's theory of planned behavior to different samples of university students, with a focus on Algerian university students. We also included a dimension of human capital, consisting of knowledge, skills, experience, and capabilities, and formulated specific hypotheses to explore the impact of these factors on entrepreneurial intention. The tests conducted revealed that our tool was effective in measuring the proposed model.

The results indicated that Ajzen's theory of planned behavior has a strong correlation with entrepreneurial intention in the Algerian context. The subjective norm, which was unclear in previous studies regarding its direct relationship with entrepreneurial intention, was found to affect the intention to start a business in the Algerian society. However, the human capital of university students was found to have no direct effect on entrepreneurial intention, contrary to our hypotheses. Further research is needed to explore the indirect effect of human capital on entrepreneurial intention.

Ultimately, this study confirms that Ajzen's theory of planned behavior remains the most important theory to provide the antecedent of entrepreneurial intention. Our research also differed from previous studies by focusing on university students rather than students, and our results were consistent with prior findings, suggesting that working experience or unemployment do not alter the effect of the three antecedents of intention.

Appendixes:

Appendix A

Table 3: « Convergent validity measurement results »

	Indicators	Factor Loading	AVE	Composite reliability
Attitude Toward Entrepreneurship	ATE_1	0.741	0.673	0.911
	ATE_2	0.871		
	ATE_3	0.794		
	ATE_4	0.832		
	ATE_5	0.857		
Perceived Behavioural Control	PBC_2	0.804	0.636	0.897
	PBC_3	0.861		
	PBC_4	0.847		
	PBC_5	0.783		
	PBC_6	0.679		
Subjective Norm	SN_1	0.87	0.669	0.858
	SN_2	0.822		
	SN_3	0.759		
Entrepreneurial Intention	EI_1	0.821	0.721	0.939
	EI_2	0.806		
	EI_3	0.906		
	EI_4	0.777		
	EI_5	0.882		
	EI_6	0.895		
Knowledge	knwoe_2	0.794	0.597	0.816
	knwoe_3	0.783		
	knwoe_5	0.742		
Skill	Skill_1	0.7	0.499	0.799
	Skill_3	0.766		
	Skill_5	0.654		
	Skill_6	0.699		
Capabilities	Capb_1	0.654	0.522	0.812
	Capb_4	0.798		
	Capb_5	0.652		
	Capb_6	0.772		
Experience	Exp_1	0.75	0.509	0.806
	Exp_2	0.701		
	Exp_3	0.721		
	Exp_4	0.681		

Source: made by the researchers using Smart PLS 4

Appendix B

Table 4: « cross-loading »

	ATE	EI	KNOW	PBC	SN	Capb	EXP	Skill
ATE_1	0.74	0.529	0.357	0.503	0.228	0.418	0.476	0.431
ATE_2	0.871	0.511	0.425	0.529	0.435	0.403	0.478	0.335
ATE_3	0.795	0.595	0.386	0.569	0.3	0.326	0.287	0.207
ATE_4	0.832	0.533	0.411	0.61	0.313	0.313	0.351	0.316
ATE_5	0.857	0.403	0.442	0.523	0.386	0.318	0.357	0.309
EI_1	0.525	0.821	0.39	0.535	0.241	0.3	0.366	0.241
EI_2	0.556	0.806	0.37	0.668	0.274	0.337	0.368	0.253
EI_3	0.546	0.906	0.378	0.606	0.353	0.312	0.42	0.285
EI_4	0.408	0.777	0.365	0.488	0.525	0.243	0.307	0.211
EI_5	0.524	0.882	0.455	0.635	0.393	0.387	0.412	0.341
EI_6	0.539	0.895	0.411	0.594	0.428	0.289	0.4	0.38
knwoe_2	0.319	0.294	0.783	0.329	0.155	0.371	0.38	0.438
knwoe_3	0.443	0.415	0.781	0.449	0.074	0.466	0.445	0.435
knwoe_5	0.375	0.361	0.753	0.371	0.236	0.441	0.413	0.432
PBC_2	0.501	0.601	0.408	0.807	0.331	0.403	0.395	0.36
PBC_3	0.53	0.595	0.41	0.843	0.171	0.528	0.47	0.393
PBC_4	0.546	0.554	0.451	0.838	0.158	0.542	0.431	0.446
PBC_5	0.505	0.502	0.332	0.759	0.181	0.43	0.411	0.334
PBC_6	0.43	0.481	0.421	0.685	0.196	0.391	0.36	0.262
SN_1	0.417	0.419	0.23	0.206	0.864	0.115	0.175	0.025
SN_2	0.222	0.212	0.112	0.099	0.819	0.118	0.169	0.012
SN_3	0.313	0.367	0.121	0.322	0.767	0.083	0.179	0.05
Capb_1	0.26	0.208	0.433	0.384	0.137	0.642	0.453	0.386
Capb_4	0.295	0.272	0.422	0.337	0.089	0.801	0.474	0.458
Capb_5	0.326	0.281	0.318	0.525	0.065	0.65	0.389	0.407
Capb_6	0.364	0.3	0.427	0.433	0.08	0.781	0.495	0.428
Exp_1	0.4	0.325	0.461	0.48	0.038	0.509	0.742	0.598
Exp_2	0.321	0.348	0.295	0.305	0.156	0.363	0.703	0.287
Exp_3	0.326	0.395	0.446	0.379	0.25	0.453	0.728	0.406
Exp_4	0.293	0.198	0.288	0.304	0.192	0.312	0.683	0.403
Skill_1	0.207	0.208	0.485	0.32	-0.057	0.423	0.388	0.705
Skill_3	0.16	0.116	0.354	0.323	0.146	0.446	0.512	0.769
Skill_5	0.348	0.315	0.362	0.298	0.042	0.303	0.44	0.655
Skill_6	0.396	0.336	0.388	0.388	-0.026	0.463	0.402	0.69

Source: made by the researchers using Smart PLS 4

Appendix C

Questionnaire

Items	Factor
You possess the information you need in your field of specialization	**Knowledge**
If you launch your own business, you have the necessary knowledge to perform your tasks in the company.	**Knowledge**
Your acquired knowledge helps you in your professional life.	**Knowledge**
Do you think that you perform all your tasks properly	**Skill**
Your technical skills in your field are sufficient.	**Skill**
You acquire your skills through self-education.	**Skill**
Your understanding of technological tools helps you complete your tasks accurately and skillfully.	**Skill**
You have the ability to discover opportunities.	**Capabilities**
You have the ability to overcome work challenges.	**Capabilities**
You have the ability to creative and innovative	**Capabilities**
You have a strong personality that enables you to carry out your work with confidence.	**Capabilities**
You have the appropriate level of experience that qualifies you to start your own business.	**Experience**
The experience you gained during your work has increased your level of performance.	**Experience**
You have a range of experiences in different fields.	**Experience**
As a result of the time, you have spent in your job, you are able to control all the tasks of your work.	**Experience**
There are more advantages than disadvantages in being an entrepreneur	**ATE**
I am attracted to the idea of becoming an entrepreneur.	**ATE**
If I have the opportunity and resources, I will start my own project.	**ATE**
Being an entrepreneur gives me personal satisfaction.	**ATE**
Among all options, I prefer to be an entrepreneur.	**ATE**
If I decide to start a company, my friends will support me	**SN**
If I decide to start a company, my colleagues will support me	**SN**
If I decide to start a company, my family will support me	**SN**
I believe that I am fully capable of starting a business.	**PBC**
I am capable of controlling the process of establishing a new enterprise.	**PBC**
If I try to create a business, I will have a great chance of being successful.	**PBC**
It will be easy for me to develop a new project idea.	**PBC**
In general, I am aware of all the practical details required to establish a business.	**PBC**
I am ready to take on the challenge of becoming an entrepreneur	**EI**
I will spare no effort to establish and manage my own project.	**EI**
I am determined to establish my company in the future.	**EI**
I have seriously considered creating my own project.	**EI**
My professional goal is to be an entrepreneur	**EI**
I have a strong intention to establish my own company someday.	**EI**

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