

## Investigating The Determinants of Entrepreneurial Intention Among University Students-An Empirical Investigation Using Pls-Sem

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**[Abstract]** The current time needs strong entrepreneurial intention to resolve stress levels that arise due to lack of jobs availability. The existing research investigated determinants of entrepreneurial intention. To accomplish this purpose, the effect of the need for competition, the image of entrepreneurship, entrepreneurial education, attitude, subjective norm, and perceived behavioral control are investigated to determine entrepreneurial intention. Data of 246 respondents was analyzed with the help of PLS-SEM. The need for competition, image, attitude, and perceived behavioral control has significant positive effects, whereas education and the subjective norm have insignificant effects on entrepreneurial intention. Attitude has found partial mediation between need for competition and entrepreneurial intention.

**[Keywords]** entrepreneurial intention, mediation, structural equation modelling

### Introduction

Entrepreneurship is a key determinant of employment creation; it leads to high income generation and shows itself to be a driver of economic growth (Romer, 1994). The problem of unemployment is a serious issue in the young generation and produces hazardous consequences, e.g., stress, anxiety, and several health issues. According to **Gonzalez-Serrano et al. (2021)**, graduate joblessness is a common issue at the global level. Students usually complete their degrees from reputed institutions but remain unemployed or underemployed. Therefore, this time calls for good knowledge about entrepreneurship through which otherwise unemployed students can become self-employed and provide jobs to others.

According to Heuer and Covered (2014), the need for more awareness creation among students regarding entrepreneurship has arisen. Therefore, entrepreneurial education at the university level could provide a better solution to generate awareness among younger generations. With this, not only education is necessary, but a positive image of entrepreneurship as a career option among students is also important. If a person acquires knowledge but has a negative image, then there is less chance the actual practice of entrepreneurship will work (Alberti et al., 2004). The existing study includes the variables of entrepreneurial education and image of entrepreneurship. Additionally, the need for competition is also studied in the context of entrepreneurial intention in the current research model.

With the above-mentioned variables, the theory of planned behavior is used for providing the theoretical background in which attitude, subjective norm, and perceived behavioral control are also examined. In this present era, the role of entrepreneurship is significant because it could provide a positive shift towards lifting the economy. Therefore, it pulls the researcher's attention to work on this viable area. The primary objective of the study is to get insight about students' entrepreneurial intention in India. To fulfill this, the purpose of current study is divided into the following objectives: (1) to investigate the influence of the need for competition on attitude and entrepreneurial intention; (2) to examine the impact of entrepreneurial education, the image of

entrepreneurship, and the theory of planned behavior on entrepreneurial intention; and (3) to examine the mediation effect of attitude towards entrepreneurship between the need for competition and entrepreneurial intention.

## Literature Review

### *Theoretical Framework*

The existing study has taken the theory of planned behavior as the base theory; therefore, attitude, subjective norm, perceived behavioral control, and intention towards entrepreneurship have been analyzed in the research model. According to Ajzen (1985), the intention to perform a particular behavior is determined through attitude, the subjective norm, and the perceived behavioral control. Previous literature revealed that numerous variables are being studied by renowned scholars in the entrepreneurial context, but on the basis of current research's objectives, the factors identified in the context of entrepreneurial intention are attitude (Gonzalez-Serrano et al., 2021, Alam et al., 2019, Anjum, 2020, Heuer & Kolvereid, 2014, Iakovleva et al., 2011), perceived behavioral control (Barrios et al., 2022; Heuer & Kolvereid, 2014), subjective norm (Iakovleva et al., 2011, Barrios et al., 2022), the need for competition (White, 1959), entrepreneurial education (Heuer & Kolvereid, 2014; Boubker et al., 2021), and the image of entrepreneurship (Keat et al., 2011). Attitude towards entrepreneurship is a highly significant predecessor of entrepreneurial intentions (Serrano et al., 2021, Alam et al., 2019, Anjum, 2020).

Perceived behavioral control positively affects entrepreneurial intentions, while the subjective norm does not (Alam et al., 2019). Barrios et al. (2022) conducted a study in Columbia that revealed "attitude, subjective norms and perceived behavioral control have significant positive influence on entrepreneurial intentions." With this, Heuer and Covered (2014) stated variables of TPB have no significant influence on entrepreneurial intentions, whereas Iakovleva et al. (2011) and Nguyen et al. (2020) revealed that attitude, subjective norm, and perceived behavioral control have positive influences on entrepreneurial intentions.

Additionally, the current study also considered some other variables that could be helpful in providing a good understanding of the entrepreneurial intention in which the role of entrepreneurial education has been examined in the formation of entrepreneurial intention because education provides a strong base for the economic growth of a nation. According to Boubker et al. (2021), "an education program in entrepreneurship, even if it mainly consists in raising students' awareness of entrepreneurship, should have a short-term positive impact on the intention to undertake". Boubker et al. (2021) showed entrepreneurial education has significant positive influence on entrepreneurial intentions, whereas perceived social norms have a negative influence on entrepreneurial intentions among students. Farhangmehr et al. (2016) showed "entrepreneurship education has no role in improving the motivation students on university level." Additionally, creativity has a positive influence on entrepreneurial intentions (Shi et al., 2020). Heuer and Kolvereid (2014) showed a positive relationship between education and entrepreneurial intention. The need for competition signifies an individual's desire to exploit business opportunities. One more variable, i.e., image of entrepreneurship, has been studied in the present research. According to Keat et al. (2011), "a positive image of entrepreneurship is needed as career option to draw students' attention within the university environment by providing the resources and other facilities available to them."

## Conceptual Framework

### *Need for Competition*

According to White (1959), “need for competition signifies the notion of competence or an ability to deal effectively with the surrounding environment and it pertains to a person’s desire to understand the physical and social environment thereby learn how to obtain desired outcomes.” Therefore, the researchers hypothesize the following:

H1: The need for competition has significant influence on attitude towards entrepreneurship.

H2: The need for competition has significant influence on entrepreneurial intention.

### *Image of Entrepreneurship*

The image of entrepreneurship refers to that positive image in which an individual sees entrepreneurship as a source of job creation and considers it as an honorable profession also (Keat et al., 2011). It is necessary to study the effect of the image of entrepreneurship on entrepreneurial intention and researchers hypothesize the following:

H3: The image of entrepreneurship has significant influence on entrepreneurial intention.

### *Entrepreneurial Education*

Entrepreneurial education positively affects entrepreneurial intentions (Lavelle, 2019; Boubker et al., 2021). Some studies showed there is no association between entrepreneurship education and entrepreneurial intentions (Wardana et al., 2020). Therefore, the researchers hypothesize the following:

H4: Entrepreneurship Education has significant positive influence on entrepreneurial intentions among students.

### *Attitude*

According to Ajzen (1985), “Attitude measures the individual’s level of appreciation for a given behavior”. Therefore, researchers hypothesize:

H5: Attitude towards entrepreneurship has significant positive influence on entrepreneurial intentions.

### *Subjective Norm*

According to Boubker et al. (2021), “Social norms emanate from social environment influence on individual behavior.” Some research revealed the subjective norm has significant positive influence on entrepreneurial intentions (Barrios et al., 2022, Shi et al., 2020) whereas contradictions are also there (Heuer & Kolvereid, 2014). After studying this, the researchers hypothesise the following:

H6: The subjective norm has significant positive influence on entrepreneurial intentions.

### *Perceived Behavioral Control*

According to Tounes (2006), “Behavioral control can be defined as an individual’s perception of the difficulties to overcome in order to implement a given behavior, depending on the availability of resources.” Previous literature revealed perceived behavioral control has significant positive influence on entrepreneurial intentions (Alam et al., 2019, Anjum et al., 2020, Barrios et al., 2022) while others contradict this statement (Heuer & Kolvereid, 2014). Therefore, the researchers

hypothesize the following:

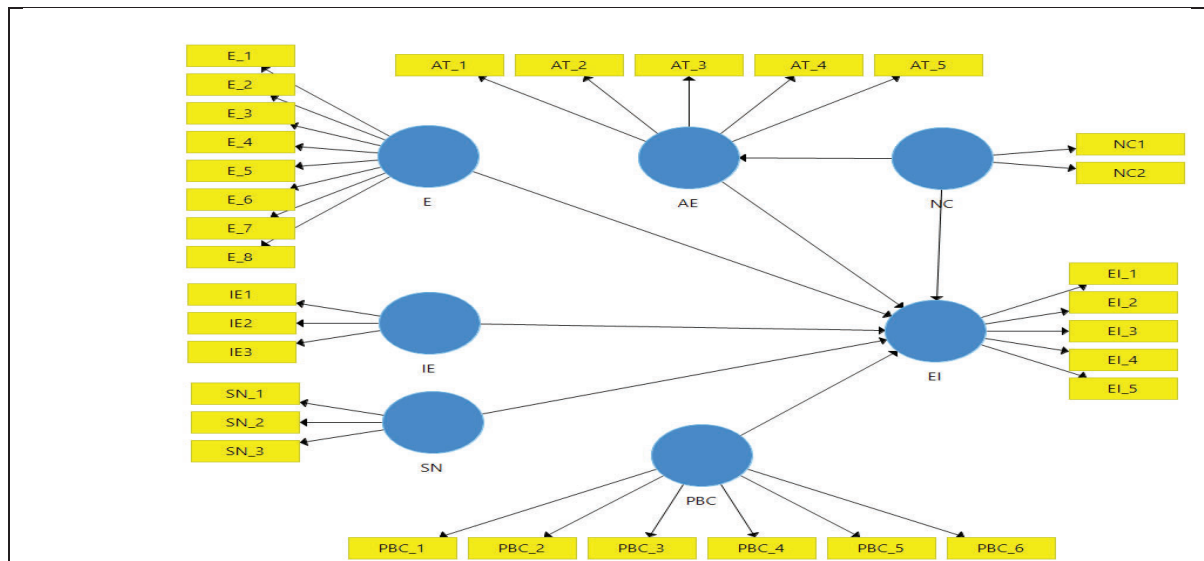
H7: Perceived behavioral control has significant influence on entrepreneurial intention.

**Mediation of Attitude**

With the above-mentioned hypotheses, mediation analysis of attitude towards entrepreneurship has also been performed between the images of entrepreneurship and entrepreneurial intention. Therefore, the researchers hypothesize the following:

H8: Attitude mediates the relationship between need for competition and entrepreneurial intention.

**Figure 1**  
*Proposed Conceptual Framework*



**Research Methodology**

The existing study was conducted in the universities of Haryana (India); the questionnaire method was used for collecting the data. The construct’s statements were adopted from past studies. To collect data, questionnaires were distributed to commerce and management students who were studying in the universities of Haryana, using the convenience sampling technique. A total of 260 questionnaires were distributed, and the final sample size was 246 because some responses were discarded due to improper filling. The questionnaire comprised demographic information and statements of constructs. A five-point Likert scale “ranging from strongly agree=1 to strongly disagree=5” was used. The current study comprised seven constructs in which statements of need for competition were taken from Sánchez & Sahuquill, 2012, attitude towards entrepreneurship were adopted from Linan and Chen( 2009), the image of entrepreneurship from Keat et al.( 2011), the subjective norm from Iakovleva et al. (2011, entrepreneurial education from Adekiya and Ibrahim( 2016)and perceived behvaioral control were adopted from Barrios et al., 2021, and entrepreneurial intention was adopted from Farrukh et al. (2019).

**Outcomes**

**Descriptive Statistics**

Descriptive statistics are presented in Table 1. The majority of respondents are male (67.07

percent), 18-30 years of age (88.62 percent) and unmarried (89.43 percent).

**Table 1**

*Demographics of Sample (N=246)*

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	165	67.07
Female	81	32.93
	<b>246</b>	<b>100</b>
<b>Age</b>		
18-30 years	218	88.62
More than 30 years	20	8.13
	<b>246</b>	<b>100</b>
<b>Marital Status</b>		
Married	26	10.57
Unmarried	220	89.43
	<b>246</b>	<b>100</b>

### ***Measurement Model Assessment***

Under measurement model assessment, statement loadings, Cronbach's alpha, average variance extracted, composite reliability, and discriminant validity are reported. To report discriminant validity, Fornell and Larcker's Criterion is used. All constructs have high Cronbach alpha form the threshold limit i.e., above 0.70 (Shiva et al., 2020; Ali et al., 2019). Average variance extracted should be above 0.50, and composite reliability should be above threshold limit of 0.70 (Shiva et al., 2020; Hair et al., 2019) and all values have met the criteria satisfactorily under Table 2 and Table 3.

**Table 2***Loadings, Cronbach's Alpha, CR & AVE*

Construct	Items	Loading	Cronbach's Alpha	CR	AVE
Entrepreneurial Education	E_1	0.756	0.896	0.916	0.578
	E_2	0.740			
	E_3	0.771			
	E_4	0.732			
	E_5	0.781			
	E_6	0.769			
	E_7	0.779			
	E_8	0.751			
Image of Entrepreneurship	IE_1	0.856	0.833	0.900	0.749
	IE_2	0.890			
	IE_3	0.849			
Need for Competition	NC_1	0.923	0.792	0.905	0.827
	NC_2	0.896			
Attitude towards entrepreneurship	AT_1	0.878	0.926	0.944	0.771
	AT_2	0.881			
	AT_3	0.905			
	AT_4	0.882			
	AT_5	0.844			
Subjective Norm	SN_1	0.851	0.774	0.869	0.689
	SN_2	0.819			
	SN_3	0.820			
Perceived Behavioral Control	PBC_1	0.769	0.888	0.915	0.642
	PBC_2	0.827			
	PBC_3	0.800			
	PBC_4	0.833			
	PBC_5	0.770			
	PBC_6	0.805			
Entrepreneurial Intention	EI_1	0.784	0.892	0.921	0.699
	EI_2	0.862			
	EI_3	0.850			
	EI_4	0.855			
	EI_5	0.828			

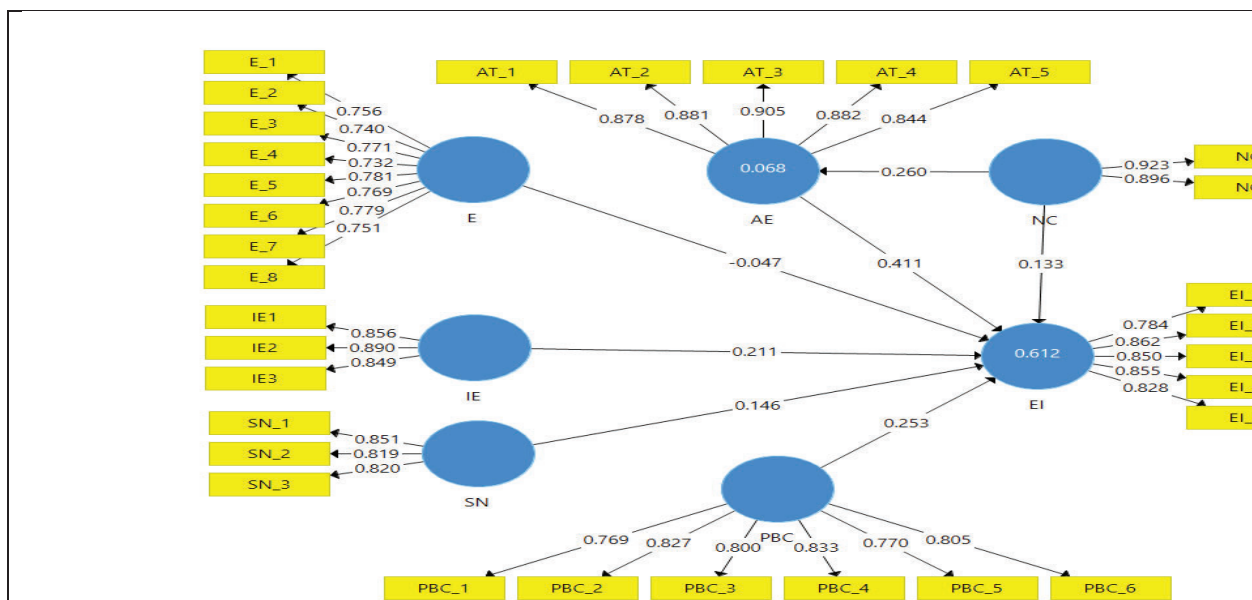
**Table 3**  
*Discriminant Validity*

Constructs	AE	E	EI	IE	NC	PBC	SN
AE	<b>0.878</b>						
E	0.559	<b>0.760</b>					
EI	0.699	0.433	<b>0.836</b>				
IE	0.201	-0.053	0.355	<b>0.865</b>			
NC	0.260	0.040	0.258	0.050	<b>0.910</b>		
PBC	0.605	0.608	0.608	0.132	0.022	<b>0.801</b>	
SN	0.583	0.704	0.566	0.131	0.030	0.721	<b>0.830</b>

**Structural Model Assessment**

Under the structural model assessment (with the help of bootstrapping process), p-values are obtained. Recommended 5000 sub-samples were used in the bootstrapping process. The major endogenous construct of the model, i.e., entrepreneurial intention, was found with 61.2% coefficient of determination ( $r^2$ ), which is quite high in behavioral science study (Shiva et al., 2020). SRMR (standardized root mean square residual) value is below 0.08. Table 4 showed values of structural model assessment where prominent influence on entrepreneurial intention was found from attitude (b=0.411, p-value<0.05), followed by perceived behavioral control (b= 0.253, p value< 0.05), then by image of entrepreneurship (b=0.211, p-value<0.05), and by need for competition (b=0.133, p-value<0.05). The subjective norm (b=0.146, p-value > 0.05) and entrepreneurial education (b=-0.047, p-value>0.05) showed insignificant influence on entrepreneurial intention. Need for competition has significant impact on attitude (b=0.260, p-value<0.05). Figure 2 shows all values mentioned above.

**Figure 2**  
*Structural Model Assessment*





**Table 4**  
*Structural Model Assessment*

Hypothesis	Path Relationships	Std. Beta	Sample Mean	T-statistics	P-values	Results
H1	NC->AE	0.260	0.263	2.914	0.004	Supported
H2	NC->EI	0.133	0.131	2.362	0.018	Supported
H3	IE->EI	0.211	0.204	2.534	0.011	Supported
H4	E->EI	-0.047	-0.036	0.553	0.580	Not Supported
H5	AE->EI	0.411	0.415	4.072	0.000	Supported
H6	SN->EI	0.146	0.153	1.448	0.148	Not Supported
H7	PBC->EI	0.253	0.233	2.556	0.011	Supported
H8	NC->AE->EI	0.107	0.113	2.060	0.039	Supported

Thereafter, the effect size ( $f^2$ ) is reported. The need for competition showed an  $f^2$  value of 0.041 and for attitude is 0.073 towards the entrepreneurial intention. The image of entrepreneurship is on entrepreneurial intention found 0.103. Entrepreneurial education on entrepreneurial intention is 0.002, The attitude on intention is 0.212, the subjective norm on intention is 0.019, and the perceived behavioral control on intention showed an  $f^2$  value of 0.069.

Table 5 shows the data of  $r^2$  and  $Q^2$  where  $Q^2$  shows the predictive relevance and  $r^2$  shows the model's coefficient of determination. The  $Q^2$  value, which is above zero, shows some predictive relevance, and the model met this criterion. Table 6 shows the mediation analysis of attitude between the need of competition and the entrepreneurial intention where the VAF (variance account for) value is 0.446, which depicts partial mediation exists.

**Table 5**  
*Results of  $R^2$  and  $Q^2$  values*

Construct	$R^2$	Adjusted $R^2$	$Q^2$
Attitude towards	0.068	0.064	0.046
Entrepreneurship Entrepreneurial Intention	0.612	0.603	0.382

**Table 6**  
*Mediation effect of Attitude towards Entrepreneurship*

Predecessor Construct	Direct Effects on Entrepreneurial Intention	Indirect Effects	Total Effects	Significance of Total Effects
Need for Competition	0.133	0.107	0.240	Yes



### Conclusion & Implications

The significance of this research is to provide new insights for identifying the factors that could affect entrepreneurial intentions among university students. The role of entrepreneurship is indispensable in every economy. Therefore, the current study is helpful in providing a little contribution for strong nation-building by studying those variables that affect entrepreneurial intention. After PL-SEM, the results showed that entrepreneurial education has no significant influence on entrepreneurial intention. It may be caused by only focusing on theoretical knowledge, which is not sufficient for them. There must be some practical knowledge given so that students come to know about the real necessity of good entrepreneurs for a nation's growth and the benefits of entrepreneurship for their personal growth, also.

The image of entrepreneurship showed positive influence on intention; therefore, it is suggested that good image of entrepreneurship should be presented to young people by specifically focusing on successful entrepreneurs. Thereafter, more focus should be given to building strong attitudes because the current study also revealed that attitude has a positive effect on entrepreneurial intention. The government should adopt measures through which it can create a positive environment for entrepreneurship. The subjective norm showed insignificant influence, which indicates that the younger generation does not get influenced by societal norms. Last, the perceived behavioral control showed a positive influence on entrepreneurial intention, which signifies that students perceive themselves as having the right to perform a particular behavior. Additionally, in the present study, the theory of planned behavior incorporating three more constructs namely (image of entrepreneurship, entrepreneurship education, and need for competition) has been used. With this, the mediation of attitude is also performed between entrepreneurial intention and the need for competition.

The research results show that entrepreneurial intention is positively influenced by attitude towards entrepreneurship, and this finding is the same as the outcomes in Serrano et al. (2021), Alam et al. (2019) and Anjum (2020). Subjective norm insignificantly influenced entrepreneurial intention, and this finding is in line with Heuer and Kolvereid (2014) but contradicts the previous findings of Barrios et al. (2022) and Shi et al. (2020). Entrepreneurial intention is significantly influenced by perceived behavioral control, which is similar to the earlier research of Alam et al. (2019), Anjum et al. (2020), and Barrios et al. (2022). Entrepreneurial intention is significantly influenced by the image of entrepreneurship and the need for competition. Attitude plays a partial mediation between the entrepreneurial intention and the need for competition. Entrepreneurial education was not a significant predictor of entrepreneurial intention, which is similar to the finding of Wardana et al. (2020) and contradicts the earlier findings of Boubker et al. (2021).

Like previous studies, the current study has certain limitations. It was conducted only in Haryana (India), and more research could be done in other regions, also. Comparison between different nations could also be incorporated. Researchers can improve the study by adding new constructs by examining the influence of predictors on entrepreneurial intentions, and further research should be conducted on the big sample size.

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