ISSN 1816-6075 (Print), 1818-0523 (Online)
Journal of System and Management Sciences
Vol. 13 (2023) No. 4, pp. 447-468
DOI:10.33168/JSMS.2023.0427

An Empirical Comparative Study Between the Theory of Planned Behavior and Psychological Capital in Predicting Entrepreneurial Intention

Anish Kumar Bhunia , and Mihir Kumar Shome

Department of Management and Humanities, National Institute of Technology, Arunachal Pradesh, Jote, India.

anisbhunia@gmail.com (corresponding author)

Abstract. Entrepreneurship is seen as a key part of economic growth in any country. Entrepreneurial Intention (EI) is thought to be the most important factor in predicting entrepreneurship. so, it is very important to know the factors that affect EI. The goal of this study is to find out how well the theory of planned behavior (TPB) can predict EI compared to psychological capital (PsyCap). Most studies use one of these models or a version of them to predict EI. Data was collected from 261 (214 male,47 female) polytechnic students of Arunachal Pradesh, INDIA, through a 5-point Likert scale questionnaire. Structural equation modelling (SEM) analysis was used to compare two structural models. The TPB was found stronger than that of PsyCap in predicting the EI of Arunachal Pradesh's polytechnic students. The results of our research suggest that encouraging polytechnic students to develop an entrepreneurial mindset by stressing the importance of attitude, perceived behavioural control, and psychological capital may improve their chances of becoming successful entrepreneurs. This paper offers suggestions for factors that practitioners in vocational and entrepreneurship education should take into account when they prepare students.

Keywords: Comparative Study, Entrepreneurial Intention, The theory of planned behavior, Psychological Capital

1. Introduction

According to research (Aziz et al., 2022; Baron et al., 2008), entrepreneurship has been identified as a significant strategy in combating poverty, as it has the potential to stimulate the generation of fresh employment prospects and the development of economic growth catalysts.Unemployment is a significant barrier to economic growth in emerging nations, and to some extent, entrepreneurs are responsible for addressing the issue (Biswas & Verma, 2021; Gozukara & Colakoglu, 2016; Murugesan & Jayavelu, 2017).The source of the unemployment problem is a lack of employment possibilities; the rising number of college graduates has not been matched by an expansion or increase of jobs. The minimal number of jobs is due to the absence of new businesses. According to Altinay et al. (2012); Barba-Sánchez & Atienza-Sahuquillo (2018), and Mahfud et al. (2020) the aspiration to be an entrepreneur can stimulate the formation of new businesses. India needs to make about 10 million jobs per year to feed its large number of young people (Jain, 2015). This can only be done through big-ticket, transformational entrepreneurship (Roy et al., 2017). According to Gupta & Bhawe's (2007) argument, young people's propensity for starting their businesses is seen as a valuable resource in developing countries (Biswas & Verma, 2021).Young people, particularly students, are the entrepreneurs of the future (Sieger et al., 2016). Thus, education, especially vocational education, is focused on developing mature, competitive entrepreneurs (Mahfud et al., 2020). Polytechnics are considered an integral aspect of vocational education in India (Schneider & Pilz, 2019). When compared to factor-driven economies, Indians regard entrepreneurship as a secondary career option and prefer salaried jobs in the public and private sectors (Anwar & Saleem, 2019). That’s why all stakeholders should participate in a campaign to dispel the perception that only the government can provide jobs. Instead of relying on the government and private sector for employment, graduates must be encouraged to choose entrepreneurship as a vocation (Samuel et al., 2013). The value of launching new businesses for society and the economy has piqued the attention of vocational theorists in determining what makes certain people more inclined to follow an entrepreneurial career than others (Acs et al., 2012; Dheer & Lenartowicz, 2019; Lechner et al., 2018). The process of establishing a new business takes place over time, and the first step in this process is the actualization of one's entrepreneurial intention [EI, hereafter] (De Clercq et al., 2013; Lee et al., 2011; Sharahiley, 2020). Researchers focused on psychology have had some success utilizing intentions to foretell uncommon behaviour, difficult to monitor, or includes unpredictable time gaps, such as starting a new business (Bagozzi et al., 1989; Gird & Bagraim, 2008; Krueger Jr et al., 2000). Since entrepreneurship is a sort of planned behaviour, there is preliminary empirical support for the notion that EI is a reliable predictor of the emergence of new ventures (Chrisman, 1997; Gird & Bagraim, 2008; Katz & Gartner, 1988; Reynolds & Miller, 1992). According to the report of GEM 2020-2021, a significant negative shift in EI has been observed among the Indian population. EI was 33.3% in 2019-20 but fell to 20.31% in 2020-2021 (Bharti et al., 2022). Investigating the variables that determine EI is thus one of the crucial topics of research. Researchers think that by comprehending the elements that influence a person's intention to become an entrepreneur, the entrepreneurial process may be sped up (Anjum et al., 2020). The entrepreneurial event model (Shapero & Sokol, 1982), the theory of planned behaviour (TPB, hereafter) (Ajzen, 1991), the entrepreneurial attitude orientation (Robinson et al., 1991), the intentional basic model (Krueger & Carsrud, 1993), and the Davidsson model (Davidsson, 1991) are just some examples of the many intention-based models that have been developed (Al-Jubari, 2019). Only TPB and the entrepreneurship event model continue to compete and are widely used in the literature because of their superior predictive power (Al-Jubari, 2019). Particularly, numerous investigations have recognized the advantages of TPB (Al-Jubari, 2019; Fayolle et al., 2014; Fayolle & Liñán, 2014).On the other hand, PsyCap is a novel concept in developing nations, yet it is thought to be a crucial factor in entrepreneurial operations (Yousaf et al., 2015) as a result in recent years several studies use PsyCap to predict EI (Contreras et al., 2017; Ephrem et al., 2019; Mahfud et al., 2020; Zhao et al., 2020). Even though there is empirical support for the construct and a relationship

between its parts in entrepreneurship research, PsyCap has not gotten much attention (Welter & Scrimpshire, 2021).

According to Tsai et al. (2020), fresh research is required for more nuanced knowledge accumulation and progress as the literature and practical value of PsyCap is growing. Again although researcher uses TPB (Kautonen et al., 2015; Tsordia & Papadimitriou, 2015) and PsyCap (Contreras et al., 2017; Sebora & Tantiukoskula, 2011) individually and in some studies a combination of these two (Hlatywayo et al., 2017; Liao et al., 2022) to predict EI, there is little if any, prior research that compares the relative efficacy of TPB to that of PsyCap regarding their capacity to predict EI. Moreover in India, most of the studies in the context of EI (Biswas & Verma, 2021; Roy et al., 2017) considered university and college students as a sample in their research. Despite its centrality to the Indian educational system, polytechnic institutes have received scant academic attention (Bhunia & Shome, 2023; Schneider & Pilz, 2019), so it is important to focus on the EI of polytechnic students. In addition, the research on entrepreneurship shows that most people start their businesses when they are between 25 and 34 years old (Choo & Wong, 2006; Sahinidis et al., 2021) that's why Anwar & Saleem (2019) urges that it is also critical to focus on people under the age of 25 to determine the factor influencing their EI. This research aims to compare the relative efficacy of TPB and psychological capital in predicting EI and doing so make several important contribution. First the study investigated the compatibility of TPB and psychological capital in predicting EI with empirical data obtained from polytechnic institutes of Indian state Arunachal Pradesh from the age group 16-24, this study found out the most important element of TPB in predicting EI. Second, it compare the relative efficacy of TPB to that of psychological capital in predicting EI of polytechnic students. Finally the study highlights some important suggestions for vocational theorist and policy makers and give direction for future research.The theoretical lenses for this study are theory of planned behaviour (Ajzen, 1991) and psychological capital theory of EI (Sebora & Tantiukoskula, 2011). Here's how the study is presented: In the section called "Theoretical Background and Hypotheses," the background theory is explained and the hypothesis is put forward.In the "Research Methodology" section, the details of the data and the way the research was done are explained. Then, the "Empirical Results" section gives the results. The "Discussion" section goes into more detail about the "Empirical Results," and the "Conclusion" section talks about, what its limits are, and what are the directions for future research.

2. Theoretical Background and Hypotheses

2.1. Entrepreneurial Intention (EI)

Entrepreneurship is a dynamic process of innovation, imagination, and adaptation. It necessitates the creation and use of fresh concepts and solutions (Youssef et al., 2021). Entrepreneurship entails the act of producing something new as well as the time, effort, and financial, psychological, and social risks associated with gaining resources, finding fulfillment at work, and being independent (Tavakoli, 2013). According to Bird (1988), intentionality is a mental state that directs a person's attention, experience, and actions toward a definite objective or route to accomplish something. Definitions of EI have been proposed by several authors. It is described as an individual's dedication to launching a new firm (Krueger & Carsrud, 1993). Bird & Jelinek (1989) describe it as a level of cognitive awareness that leads to the formation of a new enterprise. It might be seen as the initial phase of a growing, long-term entrepreneurial process (Buttar, 2015; Ephrem et al., 2019; Saeid et al., 2011).

2.2. The Theory of Planned Behaviour (TPB)

Based on the social cognitive theory, the TPB says that people's actions can be predicted by their intentions (Ajzen, 1991). It was found that the TPB model has been used in a lot of different ways to study people's plans to start a business (Fayolle & Gailly, 2005; Krueger, 1993; Trivedi, 2016; Trivedi, 2017) and It was also shown that Ajzen's theory of planned behaviour (TPB) was a useful study

paradigm for gauging goals in the context of career decision-making (Kolvereid, 1996b; Trivedi, 2017).

The core tenet of this theory are three factors i.e. a) “Personal Attitude (PA)”, b) “social norms (SN)”, and c) “perceived behavioural control (PBC) ” (Trivedi, 2017). People's attitudes towards behaviour are their overall assessments (good or bad) of the behaviour in question (Ajzen, 1991; Al-Jubari, 2019). So, if a person has a positive attitude toward a certain action, it is likely that they will want to do it. Researchers in the past have said that a person's attitude towards entrepreneurship is an important factor because it is linked to their ideas of what they find personally desirable (Olson & Bosserman, 1984; Trivedi, 2017). In the majority of studies across a range of cultural contexts, PA has demonstrated a constant and significant impact on EI (Al-Jubari, 2019; Almobaireek & Manolova, 2012; Douglas & Fitzsimmons, 2013; Fitzsimmons & Douglas, 2011; Iakovleva et al., 2011; Kolvereid, 1996b; Liñán et al., 2011; Liñán & Chen, 2009; Moriano et al., 2012; Tkachev & Kolvereid, 1999; Van Gelderen et al., 2008; Wu & Wu, 2008). Even However, research has shown that in a collectivist setting, attitude is not a reliable predictor of EI. This may be related to cultural differences (Al-Jubari, 2019; Siu & Lo, 2013). Thus, Hypothesis 1 states:

H1: PA has a significant positive impact on EI.

Along with a person's attitude toward behaviour, Ajzen (1991) found that the opinions of important reference groups like parents, spouses, friends, and relatives can also affect a person's behaviour to do or not do certain things (Trivedi, 2017). Social norms (SN) are the perceived social pressure to behave in a certain way. They are based on the actions and/or direct feedback. of important people (i.e., family members, peer groups, etc.). How these actions and/or direct feedback affect behaviour depends on how much someone wants to follow these actions and/or direct feedback (Paris & Van den Broucke, 2008). In the past, it was discovered that an SN has relatively little impact on an individual's intention to start a business (Kolvereid & Isaksen, 2006; Trivedi, 2017). However, there is no consistent conclusion that suggests SNs are not an important variable, and a few previous pieces of research have proven that, while it is not the most important predictor, it still has a considerable influence on EI (Kautonen et al., 2013; Lüthje & Franke, 2003; Schlaegel & Koenig, 2014). As a result, the following testable hypothesis emerges.

H2: SN has a significant positive impact on EI.

The third important factor of TPB according to Ajzen (1991) is perceived behavioural control (PBC). The term PBC describes an individual's estimation of the degree of difficulty in carrying out a specific behaviour (Ajzen, 1991). PBC is related to how easy it is to perform a behaviour, which is in turn related to how self-confident a person feels (Krueger Jr et al., 2000). If a task seems easy, it will likely be done. If it seems hard, most people won't do it (Al-Jubari, 2019). PBC has been demonstrated to be a major factor in the decision to start a business (Souitaris et al., 2007; Trivedi, 2016; Trivedi, 2017). Hence, it is hypothesized that

H3: PBC has a significant impact on EI.

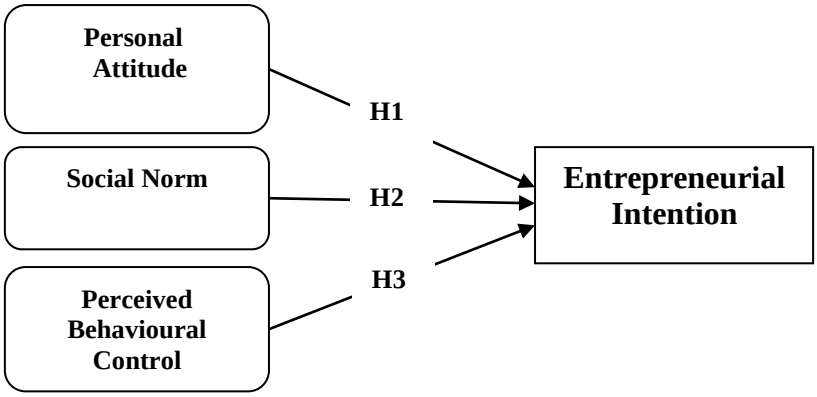

Fig. 1: Theory of planned behaviour (Ajzen, 1991) [Model 1]

2.3. Psychological capital and Entrepreneurial Intention

Psychological capital (PsyCap, hereafter) is a major concept in positive organizational psychology and behaviour study (Tsai et al., 2020). PsyCap is a state of positive individual psychological development defined by four psychological characteristics: self-efficacy, optimism, hope, and resilience (Çavuş & Gökçen, 2015; Luthans et al., 2007; Mahfud et al., 2020). First, the term "self-efficacy" refers to a person's confidence in his or her ability to muster the enthusiasm, mental stamina, and strategic planning needed to accomplish a given activity (Ephrem et al., 2019). Second, optimism, according to the field of positive psychology, is the “positive attribution” about one's present and future well-being. Optimists, then, attribute good fortune to themselves and put negative experiences in the past, which fuels their resolve and helps them triumph over adversity (Bandura & Locke, 2003; Nolzen, 2018; Seligman et al., 1998). The third is hope. Despite its association with wishful thinking, psychological literature defines hope as a willingness to persevere in the face of adversity. Hope is, more exactly, the desire to achieve combined with the capacity to identify, define, and follow the path to success. It stands for people who find other ways to reach their goals when their original plans get in the way (Luthans & Youssef, 2004; Snyder, 2000; Snyder et al., 1991; Welter & Scrimpshire, 2021). Lastly, the capacity to overcome setbacks and continue striving towards one's goals is exemplified by those who are resilient. According to the field of positive psychology, those who are resilient are those who can accept and adjust to their circumstances by maintaining a consistent set of beliefs (Coutu, 2002; Masten, 2001; Nolzen, 2018). People's actions and success in life are profoundly impacted by their level of PsyCap. PsyCap places a greater value on superiority, ostentation, and positivity, which can boost productivity and make you feel more fulfilled (Zhao et al., 2020). Higher levels of PsyCap among college students help students articulate their professional aspirations, hone their talents, and build confidence in their abilities to succeed (Luo et al., 2019). Studies found that PsyCap has a significant positive impact on EI (Ghani et al., 2013; Mahfud et al., 2020; Maslakcı et al., 2021). As a result, it has been hypothesized that

H4: Psychological capital (PsyCap) has a significant positive impact on the EI of the polytechnic student.

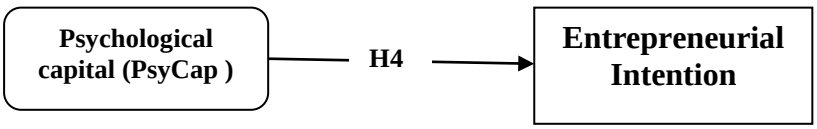

Fig. 2: Psychological capital (PsyCap) Theory of Entrepreneurial Intention (Sebora & Tantiukoskula, 2011) [Model 2]

3. Research Methodology

3.1. Research Instrument

To fulfill our study purpose, we drew upon all entrepreneurial literature constructs. An early pilot test was carried out among 30 polytechnic students. The researchers have already acknowledged the validity and reliability of the scale because all the constructs used in the study were adopted. We did, however, examine the construct and content validity of the questionnaire for clarification, and we were successful in attaining the predetermined magnitudes. We used a Likert-type scale with five points, with values ranging from 1 ("strongly disagree ") to 5 ("strongly agree"). Using the results of the pilot study, we construct a questionnaire with two sections: a) demographic information and b) social and psychological content. Appendix 1 lists the questionnaire items and their sources of adoption.

3.2. Survey Procedure and Respondents' Description

A population of polytechnic students from the Indian state of Arunachal Pradesh was taken into consideration for this study. There are a total of six polytechnic institutes in this state, five of which are Government polytechnics (Rajiv Gandhi Govt. Polytechnic College, Itanagar; Govt Polytechnic College, Dirang; Govt Polytechnic College, Pasighat; Govt Polytechnic College, Roing; C.P.Namchoom Govt Polytechnic College, Namsai) and one private polytechnic (Tomi polytechnic college, Basar). We employed a questionnaire, a quantitative data-collecting method, to collect the data necessary to advance the research objectives. From September to November 2022, data was gathered by purposive sampling.The purpose was to gather data from samples below 25 years of age as recommended by Anwar & Saleem, (2019). The intended population consists of roughly 520 polytechnic students .300 questionnaires in all were given out. The mean age of respondents was 18.58 (Standard Deviation: 2.34). Table 1 makes it clear that respondents to the survey possessed a diversity of demographic features.

Table 1: Demographic profile of the polytechnic students (N = 261)

Dimensions	Category	Frequency	Percentage
Gender	Male	214	82.00
	Female	47	18.00
Residence	Rural	164	62.80
	Urban	97	37.20
Family Type	Joint	152	58.20
	Nuclear	109	41.80
Education qualification of father	Secondary or below	182	69.70
	Graduate	59	22.60
	Postgraduate or above	20	7.70
Education qualification of mother	Secondary or below	217	83.10
	Graduate	36	13.80
	Postgraduate or above	8	3.10

Occupation of father	Self_employed	95	36.40
	Salary_worker	97	37.20
	Unemployed	57	21.80
	Retired	12	4.60
Occupation of mother	Self_employed	70	26.80
	Salary_worker	68	26.10
	Unemployed	121	46.40
	Retired	2	0.80
Annual Family Income	Below Rs3.00 lakh	210	80.50
	Rs 3.00-Rs5.99	33	12.60
	Rs 6.00lakh and above	18	6.90

3.3. Data Screening

Only 267 out of 300 questionnaires were returned. The acquired data was then evaluated to ensure its accuracy and suitability for further study. After removing partial responses and respondent misconduct, only 261 questionnaires with all relevant areas completed were judged suitable for further examination. This ensured a satisfactory level of data quality regarding its representation (Elali & Al-Yacoub, 2016). For structural equation modelling (SEM) models, it is advised to collect data from at least 200 samples (Bhunia & Shome, 2023; Boomsma, 1983; Kline, 2011). This requirement is met with a sample size of 261. Some data were found to be missing. The maximum permitted missing data for a particular variable was 10% (Cohen & Cohen, 1983; Kline, 1998; Roy et al., 2017), while the biggest amount discovered in our case was 4%. Moreover, "regression imputation" was used with SPSS AMOS (version 23) to impute the missing data (Bhunia & Shome, 2023). One of the fundamental tenets of structural equation modelling (SEM) is that data should have a normal distribution (Baumgartner & Homburg, 1996; Roy et al., 2017; Shook et al., 2004) to enhance statistical inference. So, in the current study, we looked for data deviations from normality. Whether or not the responses to the variables obtained from respondents are normally distributed is tested with the skewness and kurtosis statistic. It is assumed that the data are normally distributed as the skewness statistic falls between -2 and +2 and the kurtosis statistic falls between -7 and +7 (Byrne, 2013; Hair et al., 2010). As data for the dependent variable (i.e., EI) and independent variables (i.e., PA, SN, PBC, PsyCap) were collected concurrently from the same respondent, there was a possibility that the data were exposed to common method bias (Chang et al., 2010). Harman's single-factor test was employed to establish if common method bias existed (Podsakoff & Organ, 1986). We conducted an exploratory factor analysis to determine whether a single component could explain the large covariance in both the dependent and independent variables. A high covariance (29.01%) was found to be unaccounted for by a single component (Table 2).

Table 2: Total variance explained (Harman's single factor test)

Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	9.57	29.01	29.01

Extraction Method: Principal Component Analysis

4. Empirical Result

4.1. Confirmatory Factor Analysis (CFA)

AMOS (version 23) was used to perform confirmatory factor analysis (CFA). Each item's factor loadings were examined as part of CFA. We found that three items from PsyCap (Psy_Cap3, Psy_Cap7, Psy_Cap8) and one item each from PA, and PBC (PA_1, PBC_1) had a factor loading below the minimum value of 0.05 (Kline, 2015) so we delete these items. Modification indices were then evaluated for the re-specification of the proposed framework based on the theoretical justification (Anderson & Gerbing, 1988). The use of modification indices increased the model fit indices (Fig.3). Final CFA findings showed that the following indices had a satisfactory model fit (Table 3). Composite reliability (CR) and Cronbach's alpha (α.) were used to measure the construct reliability. For composite reliability, a score of 0.6 or higher (Bagozzi & Yi, 1988) and a score of 0.7 or higher (Gefen et al., 2000) for Cronbach's alpha are considered to be good. In this study, the value of CR ranged from 0.770 to 0.928, and the value of Cronbach's alpha ranged from 0.769 to 0.931. So, all of the constructs and their dimensions could be trusted (Table 4). Using measurements of standardized factor loading and average variance extracted (AVE), the convergent validity of all constructs was established. The standardized factor loading of all 28 items met the minimum value of 0.5 (Kline, 2015), and the values of the average variance extracted (AVE) for all five constructs met the minimum value of 0.5 (between 0.501 and 0.585) (Hair et al., 2010). Fornell and Larcker's criterion (Fornell & Larcker, 1981) validated the discriminant validity of all constructs under two models. As demonstrated in Table 5&6, the square root of AVE for each construct was bigger than the values of correlation among constructs for both models.

Table 3: CFA model fit indices

Fit Indices	Recommended Value	Source	Obtain value
CMIN/df	1-4	Wheaton et al., 1977	1.217
GFI	>.90	Shevlin & Miles, 1998	0.903
TLI	>.90	Hu & Bentler, 1999	0.977
CFI	>.90	Hu & Bentler, 1999	0.980
RMSEA	<.08	MacCallum et al., 1996	0.028

Note: CMIN/DF: Minimum discrepancy divided by degrees of freedom, GFI: Goodness of the fit index, TLI: Tucker-Lewis's index, CFI: Comparative fit index, RMSEA: Root mean square error of approximation.

Table 4: Results of the confirmative factor analysis

Construct	Item	Factor Loadings	CR	AVE	Cronbach's α
EI	EI_1	0.718	0.843	0.520	0.856
	EI_2	0.801			
	EI_3	0.624			
	EI_4	0.724			
	EI_5	0.730			
Psy_Cap	Psy_Cap1	0.708	0.928	0.502	0.931
	Psy_Cap2	0.722			
	Psy_Cap4	0.709			
	Psy_Cap5	0.699			
	Psy_Cap6	0.814			
	Psy_Cap9	0.763			
	Psy_Cap10	0.782			
	Psy_Cap11	0.621			
	Psy_Cap12	0.737			
	Psy_Cap13	0.590			
	Psy_Cap14	0.695			
	Psy_Cap15	0.638			
	Psy_Cap16	0.707			

PA	PA_2	0.702	0.770	0.528	0.770
	PA_3	0.725			
	PA_4	0.753			
SN	SN_1	0.707	0.822	0.536	0.835
	SN_2	0.743			
	SN_3	0.675			
	SN_4	0.800			
PBC	PBC_2	0.653	0.772	0.532	0.769
	PBC_3	0.733			
	PBC_4	0.797			

Note
CR:Composite Reliability, AVE:Average Variance Extracted,EI: Entrepreneurial Intention, Psy_Cap: Psychological Capital, PA: Personal Attitude, SN: Social Norm, PBC: Perceived Behavioral Control

Table 5. Test of discriminant validity of the study constructs under model 1

Constructs	EI	PA	SN	PBC
EI	***0.721***			
PA	0.568	***0.726***		
SN	0.251	0.239	***0.732***	
PBC	0.487	0.340	0.232	***0.729***

Table 6. Test of discriminant validity of the study constructs under model 2

Constructs	EI	Psy_Cap
EI	***0.721***	
Psy_Cap	0.336	***0.708***

Source: The authors.
Notes: The diagonals represent the square root of the average variance extracted and the lower cell represents the correlation among constructs.

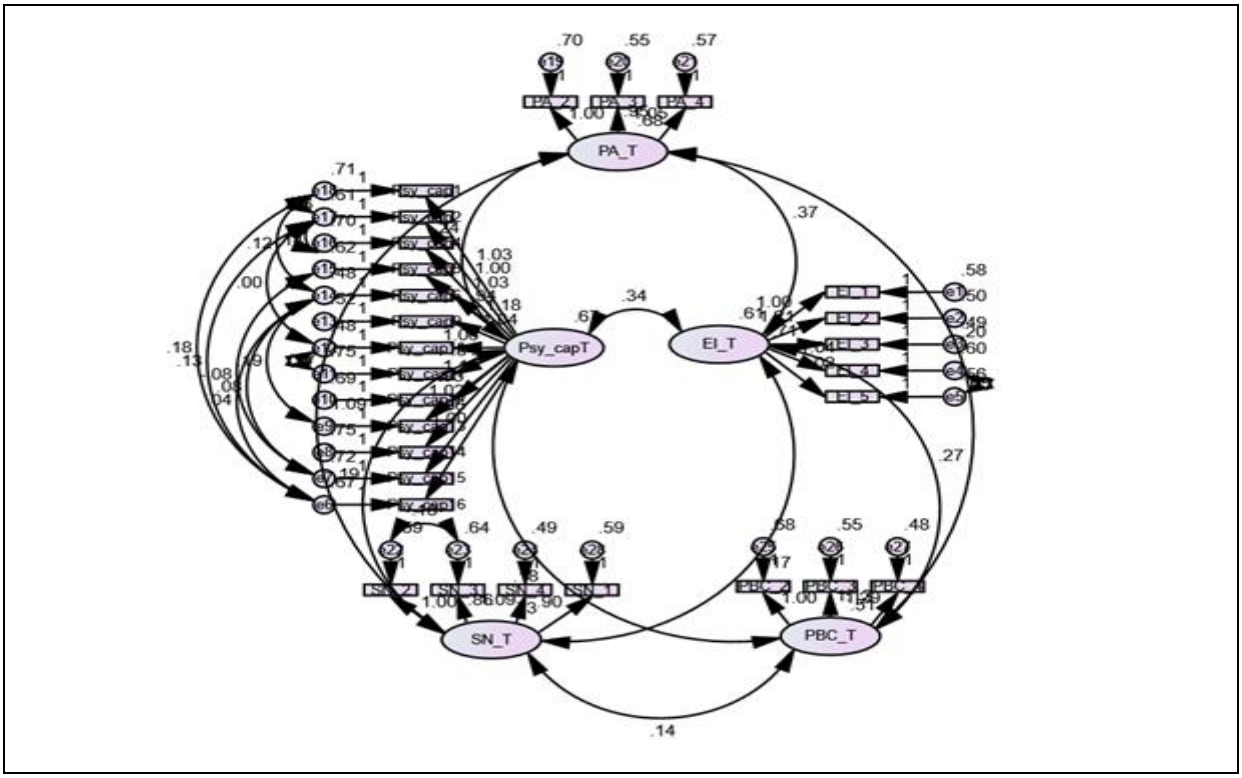

Fig. 3: Measurement Model

4.2. Hypotheses Testing

4.2.1 Research Model

The objective of our research was to evaluate the impact of TPB and Psy_Cap on the EI of polytechnic students and compare the relative efficacy of TPB to that of psychological capital in predicting EI. Model fit indices and Hypotheses results are presented in Table 7. Based on the objective, two structural models were built (Fig1 and Fig 2), and the relationship strength was assessed by calculating the path coefficient beta weight (β) between constructs using AMOS (version 23).

Table 7: Hypotheses Result

Hypothesized Relationship	Standardized Estimates(β)	C.R. (t-value)	P-value	Decision
H1: PA has a significant positive impact on EI.	0.440	5.309	P<0.001	**Supported**
H2:SN has a significant positive impact on EI.	0.071	1.042	P=0.297	**Rejected**
H3:PBC has a significant positive impact on EI.	0.321	4.128	P<0.001	**Supported**
H4:PsyCap has a significant positive impact on the EI of the polytechnic student.	0.521	6.201	P<0.001	**Supported**

Table 8: Model Fit Indices for Structural Models

Model Fit Indices	Model 1	Model 2
CMIN/df	1.127	1.473
GFI	0.955	0.927
TLI	0.991	0.972
CFI	0.993	0.978
RMSEA	0.022	0.042

Table 9: Comparison of Squared Multiple Correlations (R-Square) of Structural Models

Squared Multiple Correlations(R- Square)	TPB	Psy_Cap
	0.424	0.271

5. Discussion

This work contributes to the current body of research on the use of the TPB and Psy Cap in the context of elucidating EI in various ways. First, according to the literature, this study is the first one to validate the capability of TPB and PsyCap in predicting EI in the context of Indian polytechnic institutes. Second, this article's main contribution is to present a comparison between TPB and PsyCap in predicting EI. The findings of this study indicate both TPB and PsyCap (β=0.521, P<0.001), are positively related to the EI of polytechnic students. TPB explains 42% variance in EI which is similar to the findings (Autio et al., 2001; Kautonen et al., 2013; Kolvereid, 1996; Liñán & Chen, 2009; Van Gelderen et al., 2008) indicating that TPB often accounts for 30%-45% of the variation in EI. In comparison to TPB, PsyCap only accounts for a 27% variation in EI (Table 9). So results indicate that TPB outperforms the PsyCap in predicting EI among polytechnic students of Arunachal Pradesh. It was also revealed that among the main constructs of TPB (i.e. PA, SN, and PBC), PA had the most significant association with EI (β=0.440, P<0.001) which is in line with the findings of previous research (Gird & Bagraim, 2008; Marques et al., 2012; Roy et al., 2017). The second most important element of TPB in predicting EI was PBC (β=0.321, P<0.001).SN, on the other hand, doesn't seem to have a significant impact on EI (β= 0.071, P=0.297), according to this study. This isn't surprising since other studies don't even include them in the questionnaire, and SN's ability to predict EI hasn't always been proven (Kolvereid, 1996a; Liñán & Fayolle, 2015; Sahinidis et al., 2012, 2019). A recent study (Sahinidis et al., 2019) compare TPB with big-five personality traits in predicting EI and found TPB accounted for 65.7% of the variance in EI while big-five personality traits accounted for only 15% of the variance in EI. Lastly, the majority of studies that evaluate students' EI in the Indian context are based on a sample collected from university and engineering graduates (Anwar & Saleem, 2019; Biswas & Verma, 2021; Roy et al., 2017). In this study, samples were derived from polytechnic students as there is less emphasis on research on polytechnic students in India (Schneider & Pilz, 2019). Also, this research work is based on a sample with an age range from 16-24 years which satisfies the concern of Anwar & Saleem, (2019) who argue it is also critical to focus on people under the age of 25 to determine the factor influencing their EI.

6. Conclusion

6.1. Implication

Our research's conclusions have several important ramifications for entrepreneurial theory and practice. First of all this work contributes by showing that TPB is more effective than the PsyCap model of EI. Findings suggest that polytechnic students from the Indian state of Arunachal Pradesh

are more engaged in their attitudinal concerns (Roy et al., 2017) while anticipating entrepreneurship as a potential career option. Consequently, a set of strategies that leads to the improvement of the student's attitude toward entrepreneurship might work as an effective lever if public policymakers and institute administration wish to increase the number of graduates who opt to start their businesses (Trivedi, 2017). PBC emerges as another significant antecedent in determining EI. Entrepreneurship education is important because it helps students gain PBC, which increases students' willingness to start new businesses (Trivedi, 2017). Second, training prospective entrepreneurs through education is regarded as an important component of unemployment solutions. Our study suggested that entrepreneurial curricula might benefit from incorporating training in PsyCap because it can be improved and taught (Maslakcı et al., 2021). To accomplish this, institutes could provide students with a realistic preview of small business owners in the hopes of reducing their pessimism and increasing their PsyCap. As a result, people will be more receptive to the idea of starting their businesses and will be more likely to seize chances when they arise (Ephrem et al., 2019). Lastly, the results of our study show that paying attention to the roles of PA, PBC, and PsyCap can make polytechnic students more likely to want to start their businesses. Even though polytechnic graduates have the skills to start a business in their area of expertise, that is not enough. Those who work in vocational education need to encourage positive PA toward entrepreneurship, increase PBC through entrepreneurship education and instill positive PsyCap in students which will hopefully drive the students to become great entrepreneurs in their disciplines.

6.2. Limitation and Future Research Scope

Like with any exploratory study, there are some restrictions on this investigation. First and foremost, the sample size is relatively small in this study. However previous empirical studies got satisfactory results with a similar sample size (215 polytechnic students) in alike context (Mahfud et al., 2020). The utilization of college students is a prevalent and expedient practice in entrepreneurship research. Furthermore, the entrepreneurial intention of students exhibits homogeneity and stability over an extended duration, as evidenced by previous studies (DeGeorge & Fayolle, 2013; Mueller & Thomas, 2001). The aforementioned methodology has faced criticism due to the absence of professional exposure and emotional development among students, which may result in their inadequate representation of the general population (Robinson, Huefner, et al., 1991). As a result, this study is subject to a limitation which has the potential to introduce sample biases (Chen, 2014). It is also crucial to broaden the scope of EI research beyond the more manageable sample of students from a select group of Indian polytechnic institutes, i.e., the Arunachal Pradesh-based polytechnic students. It would be incorrect to purposefully conclude our research that this applies to all Indian polytechnic students. For this reason, it might be necessary to replicate the research at other educational institutes across the country (Otache et al., 2021). The second limitation is not evaluating actual entrepreneurial behavior, i.e. actual venturing, but rather EI. The comparison carried out in this research should also be tested by real entrepreneurs. It is also emphasized that the sample's male-to-female ratio could provide a problem when generalizing polytechnic students (Bhunia & Shome, 2023; Roy et al., 2017). Third, future studies could test the reliability of the results reported here in different settings with more variables that weren't used in this study like TPB and PsyCap can be compared with the cognitive perspective of EI (risk perception, cognitive flexibility, etc), social capital, personality characteristics (need for achievement, innovativeness, locus of control, etc), etc. Lastly in future research, longitudinal research could be done to assess the comparability to draw causal inferences. Yet, such a study is only achievable with the institutions' long-term cooperation and the necessary resources. Prospective students can be assessed on their EI before enrolling in the course, and again after course completion, as well as their actual career choice after course completion, which will help to authenticate their EI (Roy et al., 2017).

References

Acs, Z. J., Audretsch, D. B., Braunerhjelm, P., & Carlsson, B. (2012). Growth and entrepreneurship. *Small Business Economics*, *39*, 289–300.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Al-Jubari, I. (2019). College students' entrepreneurial intention: Testing an integrated model of SDT and TPB. *Sage Open*, *9*(2), 2158244019853467.

Almobaireek, W. N., & Manolova, T. S. (2012). Who wants to be an entrepreneur? Entrepreneurial intentions among Saudi university students. *African Journal of Business Management*, *6*(11), 4029–4040.

Altinay, L., Madanoglu, M., Daniele, R., & Lashley, C. (2012). The influence of family tradition and psychological traits on entrepreneurial intention. *International Journal of Hospitality Management - INT J HOSP MANAG*, *31*(2), 489–499.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411.

Anjum, T., Farrukh, M., Heidler, P., & Díaz Tautiva, J. A. (2020). Entrepreneurial intention: Creativity, entrepreneurship, and university support. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 11.

Anwar, I., & Saleem, I. (2019). Exploring entrepreneurial characteristics among university students: An evidence from India. *Asia Pacific Journal of Innovation and Entrepreneurship*, *13*(3), 282-295.

Autio, E., H. Keeley, R., Klofsten, M., GC Parker, G., & Hay, M. (2001). Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, *2*(2), 145–160.

Aziz, K. A., Zulkifle, A. M., & Sarhan, M. L. (2022). *Social Entrepreneurship Readiness amongst the Malaysian Muslim Youths*. *Journal of System and Management Sciences*, *12*(5), 525-543.

Bagozzi, R. P., Baumgartner, J., & Yi, Y. (1989). An investigation into the role of intentions as mediators of the attitude-behavior relationship. *Journal of Economic Psychology*, *10*(1), 35–62.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94.

Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, *88*(1), 87-99.

Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, *24*(1), 53–61.

Baron, R. A.& Shane, S. A. (2008). *Entrepreneurship: A Process perspective* (2nd ed.). Thomson South - Western.

Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, *13*(2), 139–161.

Bharti, P., Shukla, S., & Dwivedi, A. (2022). *GEM INDIA REPORT 2020-21*. CRC Press.

Bhunia, A. K., & Shome, M. K. (2023). Impact of social capital on entrepreneurial intention of polytechnic students: The mediating role of innovativeness. *International Journal of Innovative Research and Scientific Studies*, *6*(2), 358–365.

Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, *13*(3), 442–453.

Bird, B., & Jelinek, M. (1989). The operation of entrepreneurial intentions. *Entrepreneurship Theory and Practice*, *13*(2), 21–30.

Biswas, A., & Verma, R. K. (2021). Attitude and alertness in personality traits: A pathway to building entrepreneurial intentions among university students. *The Journal of Entrepreneurship*, *30*(2), 367–396.

Boomsma, A. (1983). *On the robustness of LISREL (maximum likelihood estimation) against small sample size and nonnormality*. University of Groningen.

Buttar, H. M. (2015). Retracted: Formation of entrepreneurial career intentions: The role of sociocognitive factors. *Journal of Employment Counseling*, *52*(1), 2–17.

Byrne, B. M. (2013). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming, Second Edition* (2nd ed.). Routledge. https://doi.org/10.4324/9780203805534

Çavuş, M. F., & Gökçen, A. (2015). Psychological capital: Definition, components and effects. *British Journal of Education, Society and Behavioural Science*, *5*(3), 244–255.

Chang, S. J., Van witteloostuijn, A., & Eden, L. (2010). Common method variance in international business research. *Journal of International Business Studies*, *2*(41), 178–184.

Chen, L. (2014). Understanding it entrepreneurial intention: An information systems view. *Journal of Computer Information Systems*, *55*(1), 2–12.

Choo, S., & Wong, M. (2006). Entrepreneurial intention: Triggers and barriers to new venture creations in Singapore. *Singapore Management Review*, *28*(2), 47–64.

Chrisman, J. J. (1997). Estimating the extent entrepreneurial intentions become reality: A note. *United States Association for Small Business and Entrepreneurship* , Annual National Conference.

Cohen, J., & Cohen, P. (1983). Applied multiple regression/correlations analysis for thebehavioral sciences. *Hillsdale, NJ: Lawrence Eribaum Associates*.

Contreras, F., Dreu, I. D., & Espinosa, J. C. (2017). Examining the relationship between psychological capital and entrepreneurial intention: an exploratory study. *Asian social science*, *13*(3),1- 80.

Coutu, D. L. (2002). How resilience works. *Harvard Business Review*, *80*(5), 46–56.

Davidsson, P. (1991). Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of Business Venturing*, *6*(6), 405–429.

De Clercq, D., Honig, B., & Martin, B. (2013). The roles of learning orientation and passion for work in the formation of entrepreneurial intention. *International Small Business Journal*, *31*(6), 652–676.

DeGeorge, J. M., & Fayolle, A. (2013). Is entrepreneurial intention stable through time? First insights from a sample of French students. *International Journal of Entrepreneurship and Small Business*, *5*(1), 7–27.

Dheer, R. J., & Lenartowicz, T. (2019). Cognitive flexibility: Impact on entrepreneurial intentions. *Journal of Vocational Behavior*, *115*, 103339.

Douglas, E. J., & Fitzsimmons, J. R. (2013). Intrapreneurial intentions versus entrepreneurial intentions: Distinct constructs with different antecedents. *Small Business Economics*, *41*, 115–132.

Elali, W., & Al-Yacoub, B. (2016). Factors affecting entrepreneurial intentions among Kuwaitis. *World Journal of Entrepreneurship, Management and Sustainable Development*, *12*(1), 18–34.

Ephrem, A. N., Namatovu, R., & Basalirwa, E. M. (2019). Perceived social norms, psychological capital and entrepreneurial intention among undergraduate students in Bukavu. *Education+ Training*, *61*(7/8), 963–983.

Fayolle, A., & Gailly, B. (2005). Using the theory of planned behaviour to assess entrepreneurship teaching programmes, Working Paper, *Center for Research in Change, Innovation and Strategy of Louvain School of Management*, Belgium, May 2005.

Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, *67*(5), 663–666.

Fayolle, A., Liñán, F., & Moriano, J. A. (2014). Beyond entrepreneurial intentions: Values and motivations in entrepreneurship. *International Entrepreneurship and Management Journal*, *10*(4), 679–689.

Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, *26*(4), 431–440.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50.

Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, *4*(1), 7.

Ghani, M., Salanghouch, M. H., Mobaraki, M. H., & Mirzaei, E. (2013). The Effect of psychological capital on university of Tehran Students' Entrepreneurial Intention. *Asian Journal of Research in Business Economics and Management*, *3*(10), 313–321.

Gird, A., & Bagraim, J. J. (2008). The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. *South African Journal of Psychology*, *38*(4), 711–724.

Gozukara, I., & Colakoglu, N. (2016). Enhancing entrepreneurial intention and innovativeness of university students: The mediating role of entrepreneurial alertness. *International Business Research*, *9*(2), 34–45.

Gupta, V. K., & Bhawe, N. M. (2007). The influence of proactive personality and stereotype threat on women's entrepreneurial intentions. *Journal of Leadership & Organizational Studies*, *13*(4), 73–85.

Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Educational International.

Hlatywayo, C. K., Marange, C. S., & Chinyamurindi, W. T. (2017). A hierarchical multiple regression approach on determining the effect of psychological capital on entrepreneurial intention amongst prospective university graduates in South Africa. *Journal of Economics and Behavioral Studies*, *9*(1 (J)), 166–178.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55.

Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. *Education+ Training*, *53*(5), 353–370.

Jain, A. (2015, December 22). *The rise of India's entrepreneurs: How to cultivate their spirit and success*. Retrieved from https://yourstory.com/2015/12/rise-of-india-entrepreneurs

Katz, J., & Gartner, W. B. (1988). Properties of emerging organizations. *Academy of Management Review*, *13*(3), 429–441.

Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, *39*(3), 655–674.

Kautonen, T., Van Gelderen, M., & Tornikoski, E. T. (2013). Predicting entrepreneurial behaviour: A test of the theory of planned behaviour. *Applied Economics*, *45*(6), 697–707.

Kline, R. B. (1998). Structural equation modeling. *New York: Guilford*.

Kline, R. B. (2011). *Principles and practice of structural equation modeling.* (3rd ed.). Guilford Press.

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford publications.

Kolvereid, L. (1996a). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship Theory and Practice*, *20*(3), 23–31.

Kolvereid, L. (1996b). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, *21*(1), 47–58.

Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of Business Venturing*, *21*(6), 866–885.

Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5–6), 411–432.

Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, *18*(1), 5–21.

Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development*, *5*(4), 315–330.

Lechner, C. M., Sortheix, F. M., Obschonka, M., & Salmela-Aro, K. (2018). What drives future business leaders? How work values and gender shape young adults' entrepreneurial and leadership aspirations. *Journal of Vocational Behavior*, *107*, 57–70.

Lee, L., Wong, P. K., Der Foo, M., & Leung, A. (2011). Entrepreneurial intentions: The influence of organizational and individual factors. *Journal of Business Venturing*, *26*(1), 124–136.

Liao, K., Liu, Z., & Li, B. (2022). The Effect of Psychological Capital and Role Conflict on the Academic Entrepreneurial Intents of Chinese Teachers in Higher Education: A Study Based on the Theory of Planned Behavior. *Frontiers in Psychology*, *13*,793408.

Liñán, F., & Chen, Y. (2009). Development and cross–cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, *33*(3), 593–617.

Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, *11*(4), 907–933.

Liñán, F., Urbano, D., & Guerrero, M. (2011). Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship and Regional Development, 23*(3–4), 187–215.

Luo, Y.-F., Yang, S.-C., Gong, R., & Lu, C.-M. (2019). Learning performance of university students from the perspective of positive psychology. *Social Behavior and Personality: An International Journal*, *47*(3), 1–10.

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, *60*(3), 541–572.

Luthans, F., & Youssef, C. M. (2004). *Human, Social, and Now Positive Psychological Capital Management*: Investing in people for competitive advantage. *Organizational Dynamics, 33*(2), 143–160

Lüthje, C., & Franke, N. (2003). The 'making'of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management*, *33*(2), 135–147.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, *1*(2), 130-149.

Mahfud, T., Triyono, M. B., Sudira, P., & Mulyani, Y. (2020). The influence of social capital and entrepreneurial attitude orientation on entrepreneurial intentions: The mediating role of psychological capital. *European Research on Management and Business Economics*, *26*(1), 33–39.

Marques, C. S., Ferreira, J. J., Gomes, D. N., & Gouveia Rodrigues, R. (2012). Entrepreneurship education: How psychological, demographic and behavioural factors predict the entrepreneurial intention. *Education+ Training*, *54*(8/9), 657–672.

Maslakcı, A., Sesen, H., & Sürücü, L. (2021). Multiculturalism, positive psychological capital and students' entrepreneurial intentions. *Education+ Training*, *63*(4), 597-612.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227-238.

Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross-cultural approach to understanding entrepreneurial intention. *Journal of Career Development*, *39*(2), 162–185.

Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, *16*(1), 51–75.

Murugesan, R., & Jayavelu, R. (2017). The influence of big five personality traits and self-efficacy on entrepreneurial intention: The role of gender. *Journal of Entrepreneurship and Innovation in Emerging Economies*, *3*(1), 41–61.

Nolzen, N. (2018). The concept of psychological capital: A comprehensive review. *Management Review Quarterly*, *68*(3), 237–277.

Olson, P. D., & Bosserman, D. A. (1984). Attributes of the entrepreneurial type. *Business Horizons*, *27*(3), 53–56.

Otache, I., Umar, K., Audu, Y., & Onalo, U. (2021). The effects of entrepreneurship education on students' entrepreneurial intentions: A longitudinal approach. *Education+ Training*, *63*(7/8), 967–991.

Paris, H., & Van den Broucke, S. (2008). Measuring cognitive determinants of speeding: An application of the theory of planned behaviour. *Transportation Research Part F: Traffic Psychology and Behaviour*, *11*(3), 168–180.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, *12*(4), 531–544.

Reynolds, P., & Miller, B. (1992). New firm gestation: Conception, birth, and implications for research. *Journal of Business Venturing*, *7*(5), 405–417.

Robinson, P. B., Huefner, J. C., & Hunt, H. K. (1991). Entrepreneurial research on student subjects does not generalize to real world entrepreneurs. *Journal of Small Business Management*, *29*(2), 42.

Robinson, P. B., Stimpson, D. V., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice*, *15*(4), 13–32.

Roy, R., Akhtar, F., & Das, N. (2017). Entrepreneurial intention among science & technology students in India: Extending the theory of planned behavior. *International Entrepreneurship and Management Journal*, *13*(4), 1013–1041.

Karimi, S., Biemans, H. J., Lans, T., Arasti, Z., Chizari, M., & Mulder, M. (2011). Application of structural equation modelling to assess the effect of entrepreneurial characteristics on students' entrepreneurial intentions. *Proceedings of ECIE*, 954-967.

Sahinidis, A. G., Giovanis, A. N., & Sdrolias, L. (2012). The role of gender on entrepreneurial intention among students: An empirical test of the theory of planned behaviour in a Greek university. *International Journal on Integrated Information Management*, *1*(1), 61–79.

Sahinidis, A. G., Stavroulakis, D., Kossieri, E., & Sdrolias, L. (2019). Using the Theory of Planned Behavior and the Big Five Personality Trait Model in Predicting Entrepreneurial Intention: A Comparison Study of the Two Models. In *Strategic Innovative Marketing and Tourism: 7th ICSIMAT, Athenian Riviera, Greece, 2018* (pp. 245-251). Springer International Publishing.

Sahinidis, A. G., Xanthopoulou, P. I., Tsaknis, P. A., & Vassiliou, E. E. (2021). Age and prior working experience effect on entrepreneurial intention. *Corporate & Business Strategy Review*, *2*(1), 18–26.

Samuel, Y. A., Ernest, K., & Awuah, J. B. (2013). An assessment of entrepreneurship intention among Sunyani Polytechnic Marketing students. *International Review of Management and Marketing*, *3*(1), 37–49.

Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta–analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, *38*(2), 291–332.

Schneider, S., & Pilz, M. (2019). The function and institutional embeddedness of Polytechnics in the Indian education system. *International Journal for Research in Vocational Education and Training (IJRVET)*, *6*(3), 284–308.

Sebora, T. C., & Tantiukoskula, S. (2011). Psychological capital and the entrepreneurial intention of college students. *International Developments in Management Research*, 199–220.

Seligman, M., Abramson, L., Semmel, A., & Von Bayer, C. (1998). *Learned Optimism.* New York: Pocket Books.

Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), Encyclopedia of entrepreneurship (pp. 72–90). Englewood Cliffs: Prentice-Hall. Inc.

Sharahiley, S. M. (2020). Examining entrepreneurial intention of the Saudi Arabia's University students: Analyzing alternative integrated research model of TPB and EEM. *Global Journal of Flexible Systems Management*, *21*, 67–84.

Shevlin, M., & Miles, J. N. (1998). Effects of sample size, model specification and factor loadings on the GFI in confirmatory factor analysis. *Personality and Individual Differences*, *25*(1), 85–90.

Shook, C. L., Ketchen Jr, D. J., Hult, G. T. M., & Kacmar, K. M. (2004). An assessment of the use of structural equation modeling in strategic management research. *Strategic Management Journal*, *25*(4), 397–404.

Sieger, P., Fueglistaller, U., & Zellweger, T. (2016). *Student entrepreneurship 2016: Insights from 50 countries*. International report of the GUESSS Project 2016.

http://www.guesssurvey.org/resources/PDF_InterReports/GUESSS_2016_INT_Report_final5.pdf (accessed january, 2023)

Siu, W., & Lo, E. S. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. *Entrepreneurship Theory and Practice*, *37*(2), 147–173.

Snyder, C. R. (2000). *Snyder, C.R. (Ed.), 2000. Handbook of Hope: Theory, Measures, and Applications.* Academic press.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, *60*(4), 570-585.

Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, *22*(4), 566–591.

Tavakoli, A. (2013). Impact of information technology on the entrepreneurship development. *Advances in Environmental Biology*, *7*(8), 1421–1426.

Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development*, *11*(3), 269–280.

Trivedi, R. (2016). Does university play significant role in shaping entrepreneurial intention? A cross-country comparative analysis. *Journal of Small Business and Enterprise Development*, *23*(3), 790–811.

Trivedi, R. H. (2017). Entrepreneurial-intention constraint model: A comparative analysis among post-graduate management students in India, Singapore and Malaysia. *International Entrepreneurship and Management Journal*, *13*(4), 1239–1261.

Tsai, F.-S., Leonard, K. M., & Srivastava, S. (2020). The role of psychological capital in entrepreneurial contexts. *Frontiers in Psychology*, *11*, 582133.

Tsordia, C., & Papadimitriou, D. (2015). The role of theory of planned behavior on entrepreneurial intention of Greek business students. *International Journal of Synergy and Research*, *4*(1), 23-37.

Van Gelderen, M., Brand, M., Van Praag, M., Bodewes, W., Poutsma, E., & Van Gils, A. (2008). Explaining entrepreneurial intentions by means of the theory of planned behaviour. *Career Development International*, *13*(6), 538–559.

Welter, C., & Scrimpshire, A. (2021). The missing capital: The case for psychological capital in entrepreneurship research. *Journal of Business Venturing Insights*, *16*, e00267.

Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, *8*, 84–136.

Wu, S., & Wu, L. (2008). The impact of higher education on entrepreneurial intentions of university students in China. *Journal of Small Business and Enterprise Development*, *15*(4), 752–774.

Yousaf, U., Hanfiah, M., & Usman, B. (2015). Psychological capital: Key to entrepreneurial performance and growth intentions. *International Research Journal of Social Sciences*, *4*(9), 39–45.

Youssef, A. B., Boubaker, S., Dedaj, B., & Carabregu-Vokshi, M. (2021). Digitalization of the economy and entrepreneurship intention. *Technological Forecasting and Social Change*, *164*, 120043.

Zhao, J., Wei, G., Chen, K.-H., & Yien, J.-M. (2020). Psychological capital and university students' entrepreneurial intention in China: Mediation effect of entrepreneurial capitals. *Frontiers in Psychology*, *10*, 2984.

Appendix 1: Questionnaire items and their source of adoption

Constructs and measuring items	Sources
Personal Attitude	
1 Being an entrepreneur implies more advantages than disadvantages for me.	Liñán & Chen (2009)
2 A career as an entrepreneur is attractive for me .	
3 If I had the opportunity and resources, I'd like to start a firm.	
4 Being an entrepreneur would entail great satisfaction for me.	
Social Norms	Trivedi (2016)
1 My immediate family values the entrepreneurial career more than any other career.	
2 My classmates would approve of my decision to start a business.	
3 My friends would approve of my decision to start a business.	
4 My immediate family would approve of my decision to start a business.	
Perceived Behavioural Control	Liñán & Chen (2009)
1 To start a firm and keep it working would be easy for me.	
2 I am prepared to start a viable firm.	
3 I can control the creation process of a new firm.	
4 I know the necessary practical details to start a firm.	
Entrepreneurial Intentions	Liñán & Chen (2009)
1 I am ready to do anything to be an entrepreneur.	
2 My professional goal is to become an entrepreneur.	
3 I will make every effort to start and run my firm.	
4 I am determined to create a firm in the future.	
5 I have very seriously thought of starting a firm.	
Psychological Capital	Sebora & Tantiukoskula (2011)
1 I feel confident developing new business ideas.	
2 I feel confident presenting my ideas for a new business to others	
3 I can be "on my own," so to speak, in preparing for my new business if I have to.	
4 I feel I can handle many things at a time as I prepare to start a business.	
5 I always look on the bright side of things regarding my starting a business.	
6 Right now, I see myself as being pretty successful at new business preparation.	
7 I approach my preparation for a new business as if "every cloud has a silver lining."	
8 In my life, things always work out the way I want them to	
9 If I should find myself in a jam in my new business preparation, I could think of many ways	

	to get out of it.
10	I can think of many ways to reach my current business goals.
11	There are lots of ways around any problem.
12	At this time, I am meeting the goals that I have set for myself.
13	I can manage the difficulties I encounter in my life one way or the other.
14	When I had a setback in my life, I did quickly recover from it.
15	If something can go wrong for me as I prepare to start a business, it will not affect me so much.
16	I can get through difficult times during my new business preparation.