

The Nexus between Cognitive Factors, Entrepreneurial Intention and Nascent Entrepreneurial Behavior

H. M. S. V. Silva¹, M.D. Pushpakumari², B.Nishantha³

¹Department of Human Resource Management, Faculty of Commerce and Management Studies
University of Kelaniya Sri Lanka

²Department of Business Administration Faculty of Management Studies and Commerce University of
Sri Jayewardenepura, Sri Lanka

³Department of Management & Organization Studies (MOS), Faculty of Management &
Finance, University of Colombo, Colombo -03, Sri Lanka

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.914MG007>

Received: 06 January 2025; Accepted: 13 January 2025; Published: 11 February 2025

ABSTRACT

This study examined the relationship between cognitive factors like Attitude towards Entrepreneurship (ATE), Perceived Behavioral Control (PBC) and Subjective Norms (SNs), Entrepreneurial Intention (EI), and Nascent Entrepreneurial Behaviour (NEB) among Generation Z management undergraduates at state universities in Sri Lanka with the support of two theories: Theory of Planned Behavior and the Social Cognitive Career Theory. Data from 1368 Generation Z management students who received entrepreneurial education while enrolled in university was gathered for this study using a quantitative research technique. With the aid of Smart-PLS version 4.0, Partial Least Squares-Structural Equation Modeling (PLS-SEM) methodology were used to analyse the data. The findings showed that EI significantly affected management undergraduates' NEB. Additionally, the results verified that ATE and PBC significantly affect EI, while SNs do not affect EI. One of the study's limitations is that it only looks at the EI and NEB of management undergraduates in Sri Lankan public universities, which may limit how widely the findings can be used in other contexts. Additionally, the study used a quantitative methodology, which may have overlooked qualitative variations in undergraduates' perspectives. Future studies could look at different regions and employ qualitative or mixed methods to support undergraduates' NEB completely and beyond these limitations. Government policymakers who want to support students' EI and NEB to strengthen the process of creating new ventures, banks, financial institutions, and secondary and tertiary educational institutions that wish to provide economic and advisory support for students' viable business plans are all affected by the studies. As a result, this study advances knowledge on how stakeholders might encourage management undergraduates to engage in early entrepreneurial activities, which boosts the nation's GDP.

Keywords: Attitudes Towards Entrepreneurship, Perceived Behavioural Control, Subjective Norms, Entrepreneurial intention, Nascent entrepreneurial behaviour, Generation Z Management undergraduates, Social Cognitive Career Theory, Theory of Planned Behavior,

INTRODUCTION

Entrepreneurship encourages innovation and technological progress, boosts productivity through more competition, and lowers unemployment by generating new jobs (Glavas et al., 2023; Troise et al., 2022). Entrepreneurship allows people to take control of their lives, accomplish personal objectives, and earn extra money to support their professional positions (Zahoor et al., 2023; Kallas, 2019). As a result, entrepreneurship has become one of the most effective ways to boost a nation's economy and keep it competitive in the face of the increasing dangers associated with globalisation (Bejinaru et al., 2023). Despite being seen as a source of innovation in today's environment, start-up businesses are also nimble and vulnerable (Maheshwari et al., 2023; Lihua, 2022).

While pursuing new venture growth, many start-up owners overlook crucial opportunities like researching Nascent Entrepreneurial Behavior (NEB) and Entrepreneurial Intention (EI) (Pidduck et al., 2023; Laukkanen, 2022). EI is "an individual's conscious state of mind that directs their attention to achieving the objective of venture development," according to Krueger et al. (2000) (p.413). In a similar vein, Bird (1988) characterises Entrepreneurial Intention (EI) as a mental state that motivates individuals to launch a new business. Furthermore, nascent entrepreneurs start serious initiatives to create a successful new firm but have not yet attained the status of legitimate business owners (Delmar & Davidsson, 2000). Additionally, fledgling entrepreneurs are just beginning their business endeavours, according to Lanivich et al. (2021). Given these perspectives, it is possible to conclude that budding entrepreneurs have progressed beyond their initial goal of starting their businesses and have started doing so to locate a firm. Still, they have not yet established a legal organisation. Few studies have integrated EI and NEB, even though much research has been done on EI and entrepreneurial behaviour.

The relationship between the elements influencing entrepreneurial intention and early-stage entrepreneurial behaviour when launching a new business is not widely agreed upon (Maheshwari et al., 2023; Belchior & Lyons, 2021). Therefore, it is becoming increasingly crucial to look at the relationship between the factors that influence people's EI and NEB during the new venture development process (Mai & Dickel, 2023; Glaves et al., 2023; Maheshwari et al., 2023).

The three antecedents of entrepreneurial intention, Attitude Toward Entrepreneurship (ATE), Perceived Behavior Control (PBC), and Subjective Norms (SNs) proposed by Ajzen (1991) in the Theory of Planned Behavior (TPB) are critical in promoting people's entrepreneurial intentions and, more recently, have contributed to the emergence of entrepreneurial behaviour, according to the literature on entrepreneurship (Alam et al., 2019; Farooq, 2018; Meoli et al., 2020; Thevanes, 2021; Wijayati et al., 2021).

"ATE is the degree to which an individual holds a positive or negative personal valuation about being an entrepreneur," claim Linan and Chen (2008) (p. 596). Additionally, one's attitude toward entrepreneurship is linked to assessing one's potential actions and results. People are more inclined to engage in a specific behaviour if they think the results will be favourable, according to Lopez et al. (2021). Mohammed et al. (2017) also described an individual's attitude toward entrepreneurship as evaluating their good or harmful behaviour. A person's "perception of the ease or difficulty of performing the behaviour of interest" is called the PBC notion (Ajzen, 1991, p. 183). According to Linan and Chen (2009), perceived behavioural control refers to how simple or complex starting your own business is. The association between perceived behavioural control and entrepreneurial intention has been supported by several empirical studies (Alam et al., 2019; Lopez et al., 2021; Otache et al., 2021; Wijayati et al., 2021; Tseng et al., 2022).

People's perceived expectations of others and the importance of referent groups that support or oppose a particular behaviour are the subjects of social norms (SNs) (Ajzen, 1991). Additionally, Krueger et al. (2000) described subjective norms as a person's perception of the dominant social pressure in their local community regarding the appropriateness of a particular behaviour. According to Linan and Chen (2009), the subjective norm is the perceived social pressure to engage in or abstain from entrepreneurial behaviour (p. 596). On the other hand, subjective norms assess how people in their social circles, such as parents, friends, and coworkers, would respond if they engaged in a particular behaviour, like launching a business.

Lai and To (2020) state that the younger generation should be investigated for entrepreneurial growth in light of the aforementioned findings. According to Thevanes (2021), graduates and highly educated young people strongly favour government employment because of the pension schemes and job stability. Furthermore, according to Wickramarachchi (2008), most management graduates eagerly await job openings through government hiring campaigns. Therefore, a fundamental change in mindset is required for Sri Lanka's educated youth to be ready to launch a new business and make entrepreneurship a sustainable source of income for young people (Bandara, 2019). The possibility that management undergraduates with EI could become entrepreneurs has not received much attention in Sri Lanka (Thrikawala, 2011; Nishantha, 2009).

To encourage new endeavours for management students, a few research studies in Sri Lanka went beyond the EI (Thevanes, 2021). Furthermore, no research has previously taken EI and NEB into account when studying

Sri Lankan Generation Z Management undergraduates born between 1996 and 2010 (Cilliers, 2017). Levinson (1986) states that Gen Z management undergraduates were chosen because they are 22 to 28 years old, which is just entering adulthood and is a suitable time frame for studying life structure. After all, people in this age range make more tangible decisions regarding their friendships, careers, values, and lifestyle.

Less attention has been paid to the study of young, educated entrepreneurs who are just starting (Gen Z management undergraduates who have taken entrepreneurial courses during their time in college), those who wish to start a business but are undergoing several behavioural actions in the process (Lanivich et al., 2021; Laukkanen, 2022). Thus, this study examines the relationship between the cognitive elements influencing Generation Z management undergraduates' EI and NEB.

RESEARCH PROBLEM

According to a review of earlier research, the majority of studies in this field of entrepreneurial intention research are carried out in European nations, and Ajzen's (1991) Theory of Planned Behavior (TPB) and cognitive factors predominate (Amofah et al., 2020; Hassan et al., 2020; Iddris et al., 2022; Wang et al., 2021). The cognitive factors that influence entrepreneurial intention are therefore used by several researchers (Utami et al., 2017; Hassan et al., 2020; Wang et al., 2021). In a single study, few studies have integrated cognitive components with EI and NEB, even though cognitive factors have been evaluated for entrepreneurial purposes (Belchior & Lyons, 2021; Maheshwari et al., 2023).

Nevertheless, no empirical research examining the exact relationship between cognitive characteristics, EI, and NEB using Generation Z management undergraduates as possible respondents. Thus, an empirical gap became apparent after evaluating narrative and systematic literature. Considering Generation Z management undergraduates as possible respondents under a single integrated conceptual model highlights the necessity for an empirical study combining cognitive elements (ATE, PBC, and SNs) with EI and NEB.

The Social Cognitive Career Theory (SCCT) is the most effective model for understanding the EI and NEB of big student groups when it comes to popular intention theories, according to several researchers (Liguori, 2012; Liguori et al., 2018). Because of the sizeable sample size of 1368 Generation Z management undergraduates, SCCT (Lent et al., 1994) has been employed as the anchor theory to determine the connection between EI and NEB link. By combining cognitive factors with EI and NEB under a single integrated conceptual model and integrating two theories, TPB and Social Cognitive Career Theory (SCCT), this study aims to close the theoretical and empirical gaps by demonstrating the relationship between these variables.

According to the systematic literature review, most research (70 out of 185) have used university undergraduates as their sample to examine entrepreneurial intention. Additionally, only 20 research studies were conducted among undergraduate management students. Whether they have received entrepreneurial education despite studying management as undergraduates is unknown. Twelve studies, however, looked at undergraduates who completed entrepreneurial courses as part of their degrees. It is currently unknown, though, if those 12 studies are still in their infancy after completing their entrepreneurship courses. Furthermore, 11 studies included aspiring business owners in their sample without mentioning whether they had received entrepreneurship training. Moreover, no study considers Generation Z management undergraduates when combining cognitive variables, EI, and NEB under a single integrated conceptual model (Belchior & Lyons, 2021; Maheshwari et al., 2023). As a result, this study also has a population gap.

Furthermore, the systematic literature review results display the review articles by continent. The European continent contributed the most to the world with 85 papers (46%), followed by Asia with 65 articles. South Asia contributed 18 papers, 9.7% of the world's articles. Southeast Asia is in first place (28 out of 65 articles), while South Asia is second on the Asian continent with 18 papers and a 9.7% global contribution.

Moreover, just three South Asian countries, India, Pakistan, and Sri Lanka, have contributed to the EI and NEB stream. Articles from India, Pakistan, and Sri Lanka accounted for 9, 8, and 1, respectively. In Pakistan, research has been done that integrates EI with entrepreneurial behaviour but not with NEB (Yasir et al., 2017; Farooq et al., 2018; Alam et al., 2019). Lastly, it can be stated that Sri Lanka has only released one research

article in a reputable database, which was likewise released in 2021 (Thevanes, 2021).

The study, which a Sri Lankan scholar published, examined the entrepreneurial intention of 60 postgraduate students preparing for startups. It only examined the relationship between three variables and used perceived behavioural control as a mediator, gathering data from a single state university in Sri Lanka. However, there is a contextual gap because no empirical research has been conducted locally or internationally to integrate cognitive components with EI and NEB among Generation Z management undergraduates at public universities.

Therefore, based on the above findings, this study has discovered an apparent knowledge gap in prior studies on Generation Z management undergraduates in state universities and their decision to establish a business. Thus, in the above-discussed circumstances, this study's problem statement can be stated as follows.

What is the nexus between attitude towards entrepreneurship, subjective norms, Perceived behavioural control, entrepreneurial intention and nascent entrepreneurial behaviour of Generation Z management undergraduates in state universities in Sri Lanka?

Thus, based on the above problem statement, the research objectives can be listed as follows.

1. To examine the effect of entrepreneurial intention on nascent entrepreneurial behaviour among Generation Z management undergraduates in state universities in Sri Lanka.
2. To examine the effects of attitude towards entrepreneurship, subjective norms, and Perceived behavioural control on entrepreneurial intention among Generation Z management undergraduates in state universities in Sri Lanka.

LITERATURE REVIEW

The three antecedents of entrepreneurial intention, ATE, PBC, SNs, EI, and NEB, are the subject of previous research on cognitive components covered in this section. The literature was reviewed, research gaps were identified, and hypotheses were developed using the narrative and systematic literature review (SLR) methodologies, Vosviewer software, and Zotero reference management. Furthermore, two theories—the SCCT (Lent, Brown, and Hackett, 1994) and Ajzen's TPB (1991) acknowledge the link between variables.

The study's hypotheses are developed by identifying the themes of the endogenous variable (NEB) antecedents using the Systematic Literature Review (SLR) and the narrative review. The study's hypotheses are based on articles from reputable databases (Taylor & Francis, Emerald, Springer, Wiley Online Library, Elsevier, Sage, and Scopus) published between 1980 and 2023. Cluster analysis shows how the variables relate and builds the study's hypothesis. Using cluster analysis, researchers can arrange similar observations according to the values of different parameters. Additionally, Bibliometric, which displays the "Word Cloud Relationship" of terms found under the keywords in the databases' articles, is used to examine the 185 journal articles that were chosen. The size of the circular picture highlights the significance of the article's keywords and makes the relationship between them crystal evident. Articles that mostly share the same connections are considered when determining relatedness (Boyack & Klavans, 2010). The 185 publications are grouped according to the bibliographic coupling method's number of shared citations (Kessler, 1963). As a result, this study has employed a bibliographic coupling approach with VOSviewer to identify the themes and derive the term co-occurrence network. All terms appearing five or more times in each article are considered when creating the term co-occurrence network visualisation that is displayed. The minimum threshold term occurrence value is set at five.

Relationships between EI and NEB

To demonstrate the relationship between EI and EB, two crucial stages in the establishment of new ventures, numerous studies have used intention-behavior models dating back to 1980 (Bird, 1988; Lyu et al., 2023; Dias et al., 2022; Belchior & Lyons, 2021; Laukkanen, 2022). EI is the cornerstone of entrepreneurial behaviour, claim Shirokova et al. (2016, as quoted by Palmer et al. 2021). It is the initial phase of starting a business. EI comes before actual entrepreneurial behaviour (Fayolle et al., 2006), and the TPB model is the most widely

used model to measure an individual's EI (Feola et al., 2019; Adu et al., 2020; Awwad & Al-Aseer, 2021). Few people effectively convert their EI into NEB by actually participating in actions to form a firm rather than only having intents, even if many people want to launch a business (Glaves et al., 2023; Zahoor et al., 2023; Troise et al., 2022; Maheshwari et al., 2023). This implies that the only way to demonstrate entrepreneurship is by intention, which results in actual entrepreneurial behaviour. The exact behaviour can take many forms, including entrepreneurial behaviour or NEB (Mai & Dickel, 2023; Chatterjee, 2023). EI is, therefore, a need for NEB.

EI and EB show a positive association, according to specific research that has looked closely at the TPB model (Obschonka et al., 2015). Meoli et al. (2020) also investigated how Italian graduates convert EI into genuine EB using the SCCT. Furthermore, Belchior and Lyons (2021) employed SCCT to elucidate EI and NEB in a sample of 1,149 college students from Portugal. They concluded that SCCT is a strong theory that explains university students' EI and NEB.

Furthermore, compared to TPB, Liguori et al. (2018) and Lucas and Cooper (2012) asserted that SCCT is theoretically sound in predicting intentions for new venture creation. According to the aforementioned experts, SCCT is, therefore, more reliable in understanding the EI-EB link, which precisely characterises an individual's career-related decisions; the study's initial hypothesis is as follows.

H1: The entrepreneurial intention of Generation Z management undergraduates significantly impacts their nascent entrepreneurial behaviour.

Relationships between ATE and EI

Various research discovered a positive association between students' ATE and EI (Bergner et al., 2023; Mohamed et al., 2023; Maheshwari et al., 2023). Zhang et al. (2015) also stated that in TPB antecedents, such as ATE, PBC, and SNs, short-term risk-taking preference positively influences an individual's intentions towards entrepreneurship.

Karimi et al. (2017) state that the relationship between ATE and EI is recognised. (Bergner et al., 2023; Mohamed et al., 2023; Ahmed et al., 2023; Salameh et al., 2022; Maheshwari et al., 2023) Numerous studies have revealed that ATE has a significant impact on EI. Accordingly, ATE was found to be among the most essential elements influencing an individual's EI while launching a firm (Sampene et al., 2023; Duong, 2022; Munir et al., 2019). Therefore, those with good views are likelier than those with negative attitudes to start a new company. Thus, the second hypothesis can be constructed as follows.

H2: Generation Z management undergraduates' attitudes towards entrepreneurship significantly impact their intention to formulate a new venture.

Relationships between PBC and EI

Additionally, PBC is a significant determinant in EI, according to the TPB. Furthermore, the TPB has emphasised how crucial PBC is in calculating EI. When beginning a new firm, people should feel more in control if they have plenty of possibilities and resources and anticipate few obstacles, as Martins et al. (2022) claimed. According to several researchers, people's perceived capacity to become entrepreneurs is reflected in their behavioural control beliefs about entrepreneurship (Villanueva-Flores et al., 2023). Furthermore, the degree to which an individual thinks they can launch a firm successfully is known as perceived behavioural control, according to Krueger (2000). According to this study, PBC is crucial to people's EI, per Ajzen's (1991) TPB. Thus, most entrepreneurship research has lately recognised that a business mindset can be formed if entrepreneurship education assistance is provided through reliable secondary and postsecondary education systems (Maheshwari, 2021). Additionally, there is a connection between one's PBC and EI while starting a firm, according to Boyd and Vozikis' (1994) entrepreneurial intention model (EIM). Therefore, using Ajzen's (1991) TPB, the third hypothesis can be developed as follows.

H3: Generation Z management undergraduates perceived behavioural control significantly impacts their intention to formulate a new venture.

Relationships between SNs and EI

People's perceived expectations of others and the significance of referent groups that support or oppose a particular behaviour are the subjects of the SN idea (Ajzen, 1991). Moreover, SNs were described by Krueger et al. (2000) as people's perceptions of the social pressure in their immediate surroundings over whether a behaviour should be carried out. In entrepreneurship, subjective norms can be further defined as an individual's perception of what influential others think about launching their business, which is impacted by their level of motivation. According to most of the literature, SNs are strong predictors of EI (Pham et al., 2023; Azim et al., 2022).

Since referent groups like friends and family significantly impact the establishment of new businesses, empirical research has established a substantial correlation between SNs and EI (Pham et al., 2023; Cavalcante et al., 2022). With the theoretical backing of TPB by Ajzen (1991), the fourth hypothesis can thus be developed, suggesting that subjective norms impact the EI of Generation Z management undergraduates.

H4: Subjective norms affect the entrepreneurial intention of Generation Z management undergraduates.

Conceptual Framework

Based on the above four hypotheses, the study's conceptual framework is designed as follows.

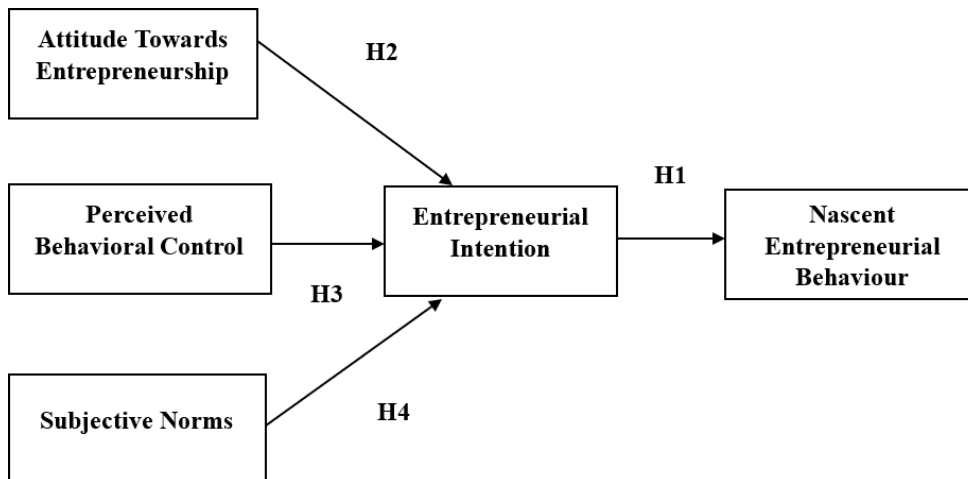


Figure 1: Conceptual Framework of the Study

Source: Authors constructed (2023)

MEASURES AND METHODOLOGY

The epistemological basis of this work is objective epistemology, which is firmly grounded in the positivist paradigm. In order to give a preliminary grasp of the relationship between these interactions between variables, the survey approach was employed as a cross-sectional study in this deductive investigation. Since few studies have been done, third-year Generation Z undergraduates seeking management degrees who had previously received entrepreneurial education under various entrepreneurial courses at 11 state universities were chosen as potential respondents. Using the cluster sampling technique, information was gathered from 1368 randomly third-year management-selected undergraduates 2023 pursuing management degrees with entrepreneurial education under various entrepreneurial subjects in their degree programs. The cluster sampling methodology, a probabilistic sampling method, was used in this study, using persons as its analysis unit.

EI is measured via the six-item test created by Linan and Chen (2009). Six items on a seven-point Likert scale make up this instrument. One denotes very strongly disagree, two strongly disagree, three disagree, four neutral, five agree, six strongly agree, and seven very strongly agree. "An individual's conscious state of mind that directs their attention to achieving the objective of venture development is referred to as having entrepreneurial intention" (Krueger et al., 2000, p.413) is the working definition of the EI used in this study.

The NEB construct is measured using the three-dimensional measure created by Alsos and Kolvereid (1998). Under three dimensions—business planning, financing the new company, and contact with the external environment—this test has 21 items anchored on a seven-point Likert scale. One denotes very strongly disagree, two strongly disagree, three disagree, four neutral, five agree, six strongly agree, and seven very strongly agree. Furthermore, "goal-oriented actions or decisions of an entrepreneur that led to the establishment of a new venture" is how Feng and Chen (2020) described nascent entrepreneurial behaviour. As a result, the working definition for the NEB of this study is the one provided by Feng and Chen (2020).

"The degree to which the individual holds a positive or negative personal valuation about being an entrepreneur" is the working definition of ATE (Linan & Chen, 2009, p. 596). Subsequently, Linan and Chen (2009) describe SNs as "the perceived social pressure to carry out -or not to carry out entrepreneurial behaviours" (p. 596). In addition, Linan and Chen (2009) define PBC as "an individual's assessment of the ease or difficulty of executing the behaviour of interest" (p. 596). The research definitions for the three antecedents of the entrepreneurial purpose of this study are thus the three definitions given above by Linan and Chen (2009).

A seven-point Likert scale, with one denoting very strongly disagree, two strongly disagree, 3 disagree, 4 neutral, 5 agree, 6 strongly agree, and 7 very strongly agree, serves as the foundation for the ATE and PBC items. However, as proposed in the original assessments by Linan and Chen (2009), subjective norms are anchored in a five-point Likert type, with 5 representing total disapproval, 4 representing acceptance, 3 representing neutrality, 2 representing disapproval, and 1 representing absolute disapproval.

Univariate, bivariate, and multivariate methods were used to analyse the survey results. It uses programs for data analysis, such as SmartPLS version 4.0, SPSS version 23.0, and Microsoft Excel. Next, with the help of SmartPLS version 4.0, the statistical analysis was carried out in two steps utilising Partial Least Squares—Structural Equation Modelling (PLS-SEM). First, the construct-specific measurement items' validity and reliability were assessed to evaluate the measurement model (outer model). Second, the theoretical relationships were tested by looking at the structural model.

RESULTS

The Sample Profiles

1368 Generation Z management undergraduates from 11 state universities who had previously completed entrepreneurship education as part of their management degree program provided data for this study. Of all responders, 24.6% are men (337), and 75.4% are women (1031). In addition, 74.2% of the 1368 undergraduates in the randomly chosen group are Sinhalese (1015), 16.7% are Tamil (228), and 9% are Muslim (123). The majority of management undergraduates, 394 out of 1368 (28.8%), are pursuing business commerce degrees, whereas just 99 (7.2%) of the respondents reported having an entrepreneurial or small business management degree out of the total (1368). Despite being in their third year, just 133 (9.7%) respondents indicated they had already launched a business when asked if they had. However, the majority (1235) said they hadn't begun yet. Of the total, 300 respondents, or 21.9%, reported having their family firm, while 1068 respondents, or 78.1%, stated they had no entrepreneurial experience or family business.

Kline (2005, as quoted in Soh et al. 2008) developed a rule of thumb for a skew index of absolute value less than 03 and kurtosis value less than 10 that are adequately univariate and regularly distributed to assess the normality of the data distribution. The results show that the sample data's skewness values are less than three, and its kurtosis values are less than ten, based on the skewness and kurtosis indices and the general rule. Therefore, this investigation does not need the data modifications available to solve normality issues in non-normal distributions (Hair et al., 2019).

A scatter plot diagram is created to investigate the linearity between the independent (EI) and the dependent variable (NEB) to test the linearity of the data distribution. Scatter plots in scatter diagrams are roughly oval when inspected visually. Finally, the linear relationship between the independent and the dependent variables shows a straight-line relationship, ensuring the assumption of linearity.

Harman's single factor score tests the common method biases of the data distributions. The researcher observed the CMB of responses using SPSS techniques. In the exploratory factor analysis, a single component explains 39.603 per cent of the variance (< 50%). The total variance for a single element is less than 50%; it can be regarded that the data of this study is free of CMB.

Descriptive Analysis of Key Constructs

The descriptive analysis of the critical variables aimed to understand the behaviour/ nature of the variables under the study.

Table 1. Descriptive analysis of the critical latent constructs

Descriptive Statistics			
	N	Mean	Std. Deviation
Nascent Entrepreneurial Behaviour	1368	4.60	1.01
Entrepreneurial Intention	1368	5.15	1.09
Perceived Behavioural Control	1368	4.70	1.03
Attitudes towards Entrepreneurship	1368	5.35	1.03
Subjective Norms	1368	3.86	0.87

Source: Survey Data (2023)

Out of the three cognitive factors (ATE, PBC and SNs), ATE (Mean = 5.35) is ranked as the topmost contributing factor, with a standard deviation of 1.03 to NEB, followed by EI (Mean = 5.15, SD = 1.09).

The Correlation Analysis

Table 2. Result of correlation analysis of key constructs

Variable	Nascent Entrepreneurial Behaviour		
	r	P-Value	Relationship
Entrepreneurial Intention	0.784	0.000	Strong Positive
Attitudes towards Entrepreneurship	0.413	0.000	Medium
Subjective Norms	0.184	0.000	Weak Positive
Perceived Behavioural Control	0.384	0.000	Medium

Source: Survey Data (2023)

**. Correlation is significant at the 0.01 level (2-tailed).

Note. (1) Between .1-.3: Weak effect. (2) Between .3-.5: medium effect. (3) Above .5: Strong effect.

The predictor variable, EI, has a positive and statistically significant association ($r = 0.784$, $sig = 0.000$) with the dependent variable, NEB. Moreover, there is a medium association between ATE and PBC with NEB.

Results of Structural Equation Modelling

This section presents PLS-SEM results, which examine the structural model's prediction capacity.

The structural model's efficiency is assessed using the following steps and guidance recommended by Hair et al. (2019). The study evaluates the efficiency of PLS-SEM results using five steps: Step 1: Assess the structural model for collinearity issues, Step 2: Assess the significance of path coefficients, Step 3: Assess the level of R^2 , Step 4: Assess the effect sizes (f^2), and Step 5: Assess the predictive relevance (Q^2).

Step 1: Assess the structural model for collinearity issues

The VIF values for routes in all regression equations range from 1.00 to 5.369, indicating negligible collinearity. These values are significantly lower than the recommended threshold value of 10.00 (Field 2009), implying no multicollinearity across

Step 2: Assess the significance of path coefficients

The importance of the path coefficients (hypothetical relations) in the structural model is estimated to decide the effect of the independent variables on the dependent variable. Each path presents a regression coefficient (β); t-statistics, obtained using the PLS Bootstrap process, evaluate the significance of the path coefficient (β). Table 3 presents the hypothesised relationships, their respective paths, t-statistics, p-value, and decision.

Table 3. Significance of paths and hypotheses testing

No.	Hypothesis	Relationship	t-Statistic	p-Value	Decision
1	H1	EI -> NEB	19.574	0.000**	Supported
2	H2	ATE -> EI	9.939	0.000**	Supported
3	H3	PBC -> EI	7.330	0.000**	Supported
4	H4	SN -> EI	0.195	0.846**	Not supported

Source: Survey Data (2023)

Note: EI stands for entrepreneurial Intention, NEB for nascent Entrepreneurial Behavior, ATE for attitudes toward entrepreneurship, SN for subjective Norms, and PBC for perceived behavioural control.

Note. * = Significant at $p < 0.05$, ** = Significant at $p < 0.01$.

Considering the path coefficients and t-statistics, 04 hypothetical relationships, the relationship between EI -

> NEB, ATE -> EI, and PBC -> EI have significant relationships as $p < 0.05$. However, the relationship between SN -> EI is insignificant as $p > 0.05$.

Step 3: Assess the model's explanatory power (R^2)

The coefficient of determination (R^2) evaluates the structural model's explanatory ability (Hair et al., 2019). It calculates the percentage of variation in the endogenous variables explained by the exogenous variable/s (Hair et al., 2011). The R^2 value is 63.7, which shows that EI (exogenous latent construct) alone accounts for 63.7% of the variation in NEB (endogenous latent construct). Following the criterion of Chin (1998), the model exhibits significant explanatory power. Table 4 depicts the Structural Model with R^2 .

Table 4. Explanatory Power of the Structural Model - Coefficient of Determination (R^2)

Construct	R Square	R Square Adjusted	Explanatory Power
Nascent Entrepreneurial Behaviour (NEB)	0.637	0.636	Significant (Substantial)

Source: Survey Data (2023)

Step 4: Assess the effect sizes (f^2)

The effect size is computed as the increase in R^2 divided by the fraction of variation that remains unexplained in the endogenous construct. The effect size (f^2) assesses the impact of a chosen predictor construct on the R^2 values of an endogenous construct. The predictive factors have small, medium, and significant impact sizes, and the threshold values for each size (small, medium, and substantial) prescribed by Cohen (1988) are 0.02, 0.15, and 0.35, respectively.

Table 5. Total Effect between the Constructs (f^2)

Constructs	Nascent Entrepreneurial Behaviour (NEB)
Entrepreneurial Intention (EI)	0.304

Source: Survey Data (2023)

Table 5 reveals the effect of EI on Nascent NEB ($f^2 > 0.3$), which is significant in size as per the guidance given by Cohen (1988).

Step 5: Assess the predictive relevance (Q^2)

The next step in assessing the structural model is its predictive relevance (Q^2). The Q^2 value determines whether the model has predictive relevance or not. When The Q^2 value is greater than 0 ($Q^2 > 0$), it reveals that the values are well reconstructed and that the model has predictive relevance. Further, The Q^2 establishes the predictive relevance of the endogenous construct/s. The Q^2 values of 0.02, 0.15, and 0.35 are each effect's weak, moderate, and substantial degrees of predictive relevance, respectively (Hair et al., 2019; Chin, 1998). In Smart-PLS, the blindfolding process is used to calculate Q^2 . Table 6 illustrates the predictive relevance of the exogenous constructs.

Table 6: Predictive Relevance of the Constructs - (Q^2)

Endogenous Constructs	$Q^2 = 1 - (SSE/SSO)$	Predictive Ability
Nascent Entrepreneurial Intention	0.069	moderate

Note. NEB -Nascent Entrepreneurial Behaviour

Source: Survey Data (2023)

According to Table 6, NEB's predictive relevance has moderate ($Q^2 = 0.069$) explanatory power. Hence, the endogenous construct's predictive significance is confirmed to be a mild degree of relevance.

DISCUSSION OF THE FINDINGS WITH THE PRIOR STUDIES

EI significantly impacts the NEB of Generation Z management undergraduates at Sri Lankan state universities, according to empirical evidence supporting the first objective, which is to investigate the effect of EI on NEB

among these students. Zhang et al. (2022) also examined how EI affected 800 international students' NEB in Korea. The study discovered a significant relationship between EI and NEB among college students launching their businesses ($\beta = 0.187$, $P < 0.001$). Additionally, Meoli et al. (2020) found that among 20,754 university students utilising SCCT, the intention to start a new company positively related to new venture formation (0.08). As a result, the current study's conclusion—that it significantly affects EI to NEB—is very consistent with the findings of other research (Lyu, Shepherd, & Lee, 2023; Zhang et al., 2022; Meoli et al., 2020).

Belchior and Lyons (2021) examined the suitability of SCCT in explaining EI and NEB using a 5-year longitudinal research design (sample of 242 Portuguese colleges) and a cross-sectional (sample of 1,149 Portuguese colleges). In this sizable student population (1149 Portuguese students), the cross-sectional results support the social cognitive career theory's capacity to understand students' intents. Additionally, a longitudinal study with a lower sample size (242 university students) only discovered a moderate ($r = 0.430$, $p = 0.002$) relationship between EI and NEB. The researcher believes that the mild rather than strong ties between EI and NEB may be explained by the small sample size (just 242 university students), which could have been strongly supported if the longitudinal study had been carried out with a larger sample.

As previously mentioned, Meoli et al. (2020) discovered that among 20,754 Italian university students, the intention to start a business was positively correlated with the formation of a new enterprise (0.08), proving the accuracy of using the SCCT to predict the intention-behavior link. Accordingly, the results of the present study are comparable to those of the aforementioned studies (Lyu, Shepherd, & Lee, 2023; Zhang et al., 2022; Meoli et al., 2020). As many scholars have previously noted, the results of this study contribute to the body of literature by reaffirming the SCCT's robustness in predicting the EI and NEB of Generation Z undergraduates (Segal et al., 2002; Liguori, 2012; Liguori et al., 2018; Meoli et al., 2020; Belchior & Lyons, 2021).

In search of more controversial research, Kautonen and Teemu (2015) discovered that in a longitudinal study involving 969 individuals from Austria and Finland, EI only accounted for 31% of the variation in nascent entrepreneurial behaviour, suggesting that intention has little bearing on entrepreneurial behaviour. Additionally, Kallas (2019) examined the connection between entrepreneurial behaviour and EI in the Estonian population ($n = 1,492$). The study's results showed no correlation between entrepreneurial behaviour and EI. As far as the researcher is aware, this discrepancy could be explained by the possibility that their sample is not representative of the total population. However, most research (Zhang et al., 2022; Meoli et al., 2020) demonstrates that EI strongly influences entrepreneurial behaviour in the university context, with university students as prospective respondents. These findings are in line with the findings of the current study.

Research question two, guided by the TPB (Ajzen, 1991), has yielded groundbreaking results. This study casts doubt on Ajzen's (1991) assertion that SNs significantly impact Generation Z management undergraduates' entrepreneurial intention, which contradicts the generally acknowledged TPB (Ajzen, 1991). Instead, our empirical results show that among Generation Z management undergraduates at Sri Lankan state universities, ATE and PBC are the key factors influencing EI.

Santos, Roomi, and Linan (2016) examined how the ATE, PBC, and SNs affected the development of EI in 249 Spanish students from the University of Seville and 267 British students from the University of Bedfordshire in Luton. SNs and EI did not significantly correlate, according to the study. However, other researchers (Krueger, Reilly, and Carsrud, 2000; Liñán & Chen, 2009) said ATE and PBC significantly impacted EI. Furthermore, results showed that ATE and PBC had a significant and positive influence on EI, whereas SNs had no effect, consistent with Maresch et al. (2016) and Santos, Roomi, and Linan (2016). In line with the findings of Maresch et al. (2016), Santos, Roomi, and Linan (2016), and Naia et al. (2017), Lee-Ross (2017) used convenience sampling to evaluate the entrepreneurial intentions of 249 MBA students in Australia and concluded that the "subjective norm" predictor variable was not verified as an antecedent of EI.

In the contentious research, Li et al. (2023) examined the connection between TPB-based traits and customers' intentions to engage in green behaviour in construction companies. Three hundred customers from construction companies in 28 Chinese provinces (cities) participated in this study. According to this study, SNs support construction enterprises' green development behavioural goals. Subjective norms are crucial in determining positive green buying intentions, as Kumar and Pandey (2023) demonstrated empirically.

Contextual and respondent differences may cause controversial findings in the aforementioned studies (Li et al., 2023; Kumar & Pandey, 2023; Oftedal et al., 2018; Siu & Lo, 2013). While the current research considers the university context with university students, the three studies mentioned above used respondents from different contextual backgrounds, such as consumers in the consumer market. Etc.

The results of the present investigation thus corroborate the association between ATE and PBC with EI. It found that ATE and PBC significantly affect the EI of Generation Z management undergraduates who want to launch a new company and adhere to Ajzen's TPB (1991). However, recent research has shown that SNs have no discernible effect on this generation's EI, casting doubt on the generally accepted TPB by Ajzen (1991). This discovery casts doubt on the fourth hypothesis. It makes a distinctive addition to the body of research that has long acknowledged subjective norms as a crucial precondition for entrepreneurial purposes.

CONCLUSION

This study's primary goal is to use the SCCT to investigate how EI affects NEB among Generation Z management undergraduates at Sri Lankan state universities (Lent et al., 1994). The current study met its first goal by demonstrating that entrepreneurial intention alone accounts for 63.7% of the variation in embryonic entrepreneurial behaviour. As a result, the study's conclusions support the existing intention-behavior literature on university contexts and do not doubt the SCCT's validity as a theory for elucidating the relationship between EI and NEB among Generation Z management undergraduates. Under the direction of the TPB (Ajzen, 1991), objective two has produced ground-breaking outcomes. The current study casts doubt on Ajzen's (1991) widely held hypothesis of planned behaviour, which holds that SNs significantly impact Generation Z management undergraduates' entrepreneurial intention. Instead, the empirical results of this study show that ATE and PBC are the key factors influencing entrepreneurial inclination among Generation Z management undergraduates at Sri Lankan state universities. The present view of this relationship is challenged by the lack of empirical evidence to support the idea that SNs significantly impact the entrepreneurial intention of this Z generation.

IMPLICATIONS OF THE STUDY

The study has both theoretical and practical implications. Research studies usually offer fresh information or perspectives on a particular subject or area of expertise, which is the theoretical contribution. They might support, challenge, or expand on accepted ideas, beliefs, or comprehensions. The study's conclusions have practical implications for various stakeholders, including the public, corporations, practitioners, and legislators. The following are the study's theoretical and practical implications.

Theoretical Implications

Using two theories—the SCCT Theory by Lent et al. (1994) and the TPB by Ajzen (1991), the current study has experimentally evaluated an integrated theoretical framework as a consequence of the systematic and narrative literature review. Although TPB was recognised as the subjective norm as a necessary antecedent of entrepreneurial intention, the current findings supported and contradicted the TPB since this study empirically demonstrated that SNs do not significantly affect the EI of Generation Z management undergraduates in Sri Lankan state universities.

The relationship between the study's exogenous variable, EI, and endogenous variable, NEB, was established using the SCCT, which serves as the study's anchor theory. The ability of SCCT to predict NEB was first

Examined in this study using a sample of 1368 Generation Z management undergraduates, even though it has been suggested to explain EI and entrepreneurial behaviour and is more reliable than other more well-known intention models (Segal et al., 2002; Liguori, 2012; Liguori et al., 2018).

Furthermore, Ajzen (1991) states that TPB, ATE, PBC, and SNs are three crucial antecedents of the intention-behavior relationship. The current research findings contradict the generally acknowledged TPB in that subjective norms substantially impact Generation Z management undergraduates' EI. Instead, our empirical results show that among Generation Z management undergraduates at Sri Lankan state universities, ATE and

PBC are the key determinants of entrepreneurial ambition. This result casts doubt on the generally held belief that SNs affect EI.

By revealing previously unreported facets of the theory, which has long acknowledged SNs as a crucial precursor to EI—it makes a distinctive contribution to the body of current material. Therefore, EI and NEB can be accepted in the Sri Lankan context when examining the validity of the two theories in establishing the links among cognitive processes (apart from the effect of SNs on EI). As a result, participants from state universities affirm that the theoretical ideas put forth by theories like the SCCT and the TPB (apart from the effect of subjective norms on intention) match the practical results of the concepts that the two theories significantly influence social and academic development.

Practical Implications

The study results indicate that ATE and PBC are essential factors in granting entrepreneurial ambitions; students should take entrepreneurship courses throughout their academic careers to acquire the requisite knowledge, skills, and entrepreneurial mindsets. On the other hand, as educational institutions provide entrepreneurship-focused programs to help students develop the motivation to lead venture formations, they should engage in workshops effectively and efficiently. Additionally, university students should take advantage of entrepreneurship internships when they begin their third or final year to gain helpful experience. In addition to enhancing their education, this hands-on experience will help students feel more equipped to handle the challenges that lie ahead.

By fostering highly positive attitudes toward establishing new ventures, secondary educational institutions should play a crucial role in helping students realise their entrepreneurial dreams. These institutions can significantly enhance students' understanding of basic entrepreneurial ideas by offering introductory courses, holding workshops and seminars, and organising entrepreneurship groups or company plan competitions. This proactive approach fosters the development of intentions and early entrepreneurial behaviour while offering a nurturing environment for students to follow their entrepreneurial passions. Higher education institutions in

In addition, secondary school institutions must offer complete entrepreneurial programs that include seminars, experiential learning opportunities, and courses that serve as pillars for students from various disciplines for multiple academic years.

To work together on entrepreneurial ventures that leverage their varied skills and viewpoints, university students from various educational backgrounds should be encouraged to engage in cross-disciplinary collaboration and multidisciplinary teamwork. Furthermore, banks and financial institutions can play a crucial role in fostering entrepreneurial intention and nascent entrepreneurial behaviour by giving students who aspire to launch their own businesses access to financing, resources, and support designed to meet their needs. This will help to promote EI and NEB among these students. As a result, banks and other financial organisations can provide student entrepreneurs with specialised financing options like venture capital funding, lines of credit, and low-interest loans.

Lastly, policymakers should consider the following methods for raising student NEB and EI. To encourage students' interest and confidence in launching their businesses, the government's higher education authority is highly advised to support entrepreneurship education at all curriculum levels. This will expose students to entrepreneurial concepts, abilities, and mindsets at an early age.

LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH

There are limitations, and the study's future lines of inquiry should be considered. This study was cross-sectional, and the researcher did not incorporate stability into the model or routinely track intention levels. As a result, the gap between EI and NEB entrepreneurial behaviour may not be well understood. Such long-term studies across multiple periods may offer crucial information about implementing EI among public first-year university students studying management from Generation Z.

Its second drawback is the study's limited emphasis on Generation Z management undergraduates. Future studies could, however, broaden their focus to include Generation Z undergraduates from various fields, including engineering, the arts, and science, as well as postgraduate students, students attending higher vocational and technical institutions, and even elementary and secondary school students. This could guarantee that every viewpoint is heard and considered, enhancing the study's scope and significance.

Furthermore, the analysis context is limited because the current study was conducted in a single academic year (the third year) and is based on a sample of students who still have degree studies to finish (only third-year management undergraduates). Because they had enough time after their entrepreneurial education to turn their intention into behaviour, it would be feasible to expand the study's scope to include additional samples of Aspiring entrepreneurs, such as Generation Z management undergraduates in their final year of undergraduate studies or postgraduate students as potential respondents.

Most studies on the connection between university students' entrepreneurial behaviour and EI have been quantitative. The same research must use qualitative or mixed methodologies to examine complex phenomena thoroughly. It provides deep, intricate, and unique insights into college students' thoughts, feelings, actions, and experiences in transforming their goal to launch a new business. Additionally, qualitative research allows researchers to document people's subjective experiences and viewpoints, giving them a platform to share their stories and interpretations. This can produce more genuine and significant findings.

Research funding

A research grant or funding did not support this study effort.

Conflict of interest

The authors declare no potential conflict of interest.

REFERENCES

1. Adu, I. N., Boakye, K. O., Suleman, A. R., & Bingab, B. B. B. (2020). Exploring the factors that mediate the relationship between entrepreneurial education and entrepreneurial intentions among undergraduate students in Ghana. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(2), 215-228.
2. Ahmed, R. R., Streimikiene, D., Qadir, H., & Streimikis, J. (2023). Effect of green marketing mix, green customer value, and attitude on green purchase intention: evidence from the USA. *Environmental Science and Pollution Research*, 30(5), 11473-11495.
3. Ajzen, I. (1991). The theory of planned behaviour. *Organisational behaviour and human decision processes*, 50(2), 179–211.
4. Alam, M. Z., Kousar, S., & Rehman, C. A. (2019). Role of entrepreneurial motivation on entrepreneurial intentions and behaviour: theory of planned behaviour extension on engineering students in Pakistan. *Journal of Global Entrepreneurship Research*, 9(1), 1-20.
5. Amofah, K., Saladrigues, R., & Akwaa-Sekyi, E. K. (2020). Entrepreneurial intentions among MBA students. *Cogent Business & Management*, 7(1), 1832401.
6. Awwad, M. S., & Al-Aseer, R. M. N. (2021). Big Five personality traits impact entrepreneurial intention: the mediating role of entrepreneurial alertness. *Asia Pacific Journal of Innovation and Entrepreneurship*, 15(1), 87-100.
7. Azim, M. T., & Islam, M. M. (2022). The role of religiosity, social factors, and perceived subjective norms on entrepreneurial intention is a study on tertiary-level students. *Journal of Global Entrepreneurship Research*, 12(1), 341-356.
8. Bejinaru, R., Neamțu, D. M., Condratov, I., Stanciu, P., & Hapenciuc, C. V. (2023). Exploring the effectiveness of university agenda for developing students' entrepreneurial behaviour. *Economic research-Ekonomska istraživanja*, 36(1), 1317-1337.
9. Belchior, R. F., & Lyons, R. (2021). Explaining entrepreneurial intentions, nascent entrepreneurial behaviour and new business creation with social cognitive career theory—a 5-year longitudinal analysis.

- International Entrepreneurship and Management Journal, 17(4), 1945-1972.
10. Bergner, S., Auburger, J., & Paleczek, D. (2023). The why and the how: A nexus on how opportunity, risk and personality affect entrepreneurial intention. *Journal of Small Business Management*, 61(6), 2656-2689.
 11. Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442-453.
 12. Boyack, K. W., Smith, C., & Klavans, R. (2018). Toward predicting research proposal success. *Scientometrics*, 114, 449-461.
 13. Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 18(4), 63-77.
 14. Cavalcante, M. A. D., Sousa-Filho, J. M. D., & Lessa, B. D. S. (2022). Entrepreneurial intentions and education: Effects on low-income students. *Journal of Education for Business*, 97(4), 228-236.
 15. Chin, W. W. (1998). Commentary: Issues and opinions on structural equation modelling. *MIS quarterly*, vii- xvi.
 16. Cilliers, L., Chinyamurindi, W. T., & Viljoen, K. (2017). Factors influencing the intention to use social media for work-related purposes at a South African higher education institution. *SA Journal of Human Resource Management*, 15(1), 1-8.
 17. Dias, Á., Cascais, E., Pereira, L., Lopes da Costa, R., & Gonçalves, R. (2022). Lifestyle entrepreneurship innovation and self-efficacy: Exploring the direct and indirect effects of marshalling. *International Journal of Tourism Research*, 24(3), 443-455.
 18. Duong, C. D. (2022). Entrepreneurial fear of failure and the attitude-intention-behavior gap in entrepreneurship: A moderated mediation model. *The International Journal of Management Education*, 20(3), 100707.
 19. Farooq, M. S., Salam, M., Fayolle, A., Jaafar, N., & Ayupp, K. (2018). Impact of service quality on customer satisfaction in Malaysia Airlines: A PLS-SEM approach. *Journal of Air Transport Management*, 67, 169-180.
 20. Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Effect and counter-effect of entrepreneurship education and social context on student's intentions. *Estudios de economía aplicada*, 24(2), 509-523.
 21. Feng, B., & Chen, M. (2020). The impact of entrepreneurial passion on psychology and behaviour of entrepreneurs. *Frontiers in Psychology*, 11, 1733.
 22. Feola, R., Vesci, M., Botti, A., & Parente, R. (2019). The determinants of the entrepreneurial intention of young researchers: Combining the theory of planned behaviour with the Triple Helix model. *Journal of Small Business Management*, 57(4), 1424-1443.
 23. Ghatak, A., Chatterjee, S., & Bhowmick, B. (2023). Intention towards digital social entrepreneurship: An integrated model. *Journal of Social Entrepreneurship*, 14(2), 131-151.
 24. Glavas, C., Mortimer, G., Ding, H., Grimmer, L., Vorobjovas-Pinta, O., & Grimmer, M. (2023). How entrepreneurial behaviours manifest in non-traditional, heterodox contexts: Exploration of the daigou phenomenon—*Journal of Business Venturing Insights*, 19, e00385.
 25. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
 26. Hassan, A., Saleem, I., Anwar, I., & Hussain, S. A. (2020). The entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education+ Training*, 62(7/8), 843-861.
 27. Iddris, F., Dogbe, C. S. K., & Kparl, E. M. (2022). Innovation education and entrepreneurial intentions among postgraduate students: The role of innovation competence and gender. *Cogent Education*, 9(1), 2083470.
 28. Kallas, E. (2019). Environment-readiness entrepreneurship intention model: The case of Estonians and the Russian-speaking minority in Estonia. *Sage Open*, 9(1), 2158244018821759.
 29. Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behaviour in predicting entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 39(3), 655-674.
 30. Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, 21(1), 47-58.
 31. 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.

32. Krueger, D. (2000). Characteristics of the female entrepreneur. *Journal of Business and Entrepreneurship*, 12(1), 87.
33. Lai, L. S., & To, W. M. (2020). E-Entrepreneurial intention among young Chinese adults. *Asian Journal of Technology Innovation*, 28(1), 119–137.
34. Lanivich, S. E., Lyons, L. M., & Wheeler, A. R. (2021). Nascent entrepreneur characteristic predictors of early-stage entrepreneurship outcomes. *Journal of Small Business and Enterprise Development*, 28(7), 1095–1116.
35. Laukkanen, M. (2022). What lies behind entrepreneurial intentions? Exploring nascent entrepreneurs' early belief systems. *International Journal of Entrepreneurial Behavior & Research*, 28(9), 177-197.
36. Lee-Ross, D. (2017). Examining the entrepreneurial intent of MBA students in Australia using the entrepreneurial intention questionnaire. *Journal of Management Development*, 36(9), 1180–1190.
37. Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122.
38. Levinson, D. J. (1986). A conception of adult development. *American psychologist*, 41(1), 3.
39. Li, X., Dai, J., Zhu, X., Li, J., He, J., Huang, Y., ... & Shen, Q. (2023). Mechanisms of attitude, subjective norms, and perceived behavioural control influence the green development behaviour of construction enterprises. *Humanities and Social Sciences Communications*, 10(1), 1–13.
40. Liguori, E. W. (2012). Extending social cognitive career theory into entrepreneurship: entrepreneurial self-efficacy's mediating role between inputs, outcome expectations, and intentions. Louisiana State University and Agricultural & Mechanical College.
41. Liguori, E. W., Bendickson, J. S., & McDowell, W. C. (2018). Revisiting entrepreneurial intentions: a social cognitive career theory approach. *International Entrepreneurship and Management Journal*, 14, 67–78.
42. Lihua, D. (2022). An extended model of the theory of planned behaviour: an empirical study of entrepreneurial intention and entrepreneurial behaviour in college students. *Frontiers in Psychology*, 12, 627818.
43. Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
44. Lopez, T., Alvarez, C., Martins, I., Perez, J. P., & Román-Calderón, J. P. (2021). Students' perception of learning from entrepreneurship education programs and entrepreneurial intention in Latin America. *Academia Revista Latinoamericana de Administración*, 34(3), 419-444.
45. Lucas, W. A., & Cooper, S. Y. (2012, November). Theories of entrepreneurial intention and the role of necessity. In *Proceedings of the 35th Institute of Small Business and Entrepreneurship Conference 2012* (p. 14).
46. Liu, J., Shepherd, D., & Lee, K. (2023). From intentional to nascent student entrepreneurs: The moderating role of university entrepreneurial offerings. *Journal of Innovation & Knowledge*, 8(1), 100305.
47. Maheshwari, G. (2021). Factors influencing entrepreneurial intentions the most for university students in Vietnam: educational support, personality traits or TPB components? *Education+ Training*, 63(7/8), 1138–1153.
48. Maheshwari, G., Kha, K. L., & Arokiasamy, A. R. A. (2023). Factors affecting students' entrepreneurial intentions: a systematic review (2005–2022) for future directions in theory and practice. *Management Review Quarterly*, 73(4), 1903-1970.
49. Mai, R., & Dickel, P. (2023). What do we say? What do we think? How implicit beliefs shape nascent entrepreneurial behaviour. *Journal of Small Business Management*, 61(6), 2986-3026.
50. Maresch, D., Harms, R., Kailer, N., & Wimmer-Wurm, B. (2016). The impact of entrepreneurship education on students' entrepreneurial intention in science and engineering versus business studies university programs. *Technological forecasting and social change*, 104, 172-179.
51. Martins, J. M., Shahzad, M. F., & Xu, S. (2023). Factors influencing entrepreneurial intention to initiate new ventures: evidence from university students. *Journal of Innovation and Entrepreneurship*, 12(1), 63.
52. Meoli, A., Fini, R., Sobrero, M., & Wiklund, J. (2020). How entrepreneurial intentions influence career choices: The moderating influence of social context—*Journal of Business Venturing*, 35(3), 105982.

53. Mohamed, M. E., Elshaer, I. A., Azazz, A. M., & Younis, N. S. (2023). Born not made: the impact of six entrepreneurial personality dimensions on entrepreneurial intention: evidence from healthcare higher education students: sustainability, 15(3), 2266.
54. Mohammed, B. S., Fethi, A., & Djaoued, O. B. (2017). The influence of attitude, subjective norms and perceived behaviour control on entrepreneurial intentions: Case of Algerian students. *American Journal of Economics*, 7(6), 274–282.
55. Munir, H., Jianfeng, C., & Ramzan, S. (2019). Personality traits and theory of planned behaviour comparison of entrepreneurial intentions between an emerging economy and a developing country. *International Journal of Entrepreneurial Behavior & Research*, 25(3), 554-580.
56. Naia, A., Baptista, R., Biscaia, R., Januário, C., & Trigo, V. (2017). Entrepreneurial intentions of sport sciences students and theory of planned behaviour. *Motriz: Revista de Educação Física*, 23, 14-21.
57. Nishantha, B. (2018). Becoming an Entrepreneur after Retirement: Entrepreneurial Intention of Technically and Vocationally Trained Military Personnel in Sri Lanka. *European Journal of Business and Management* www.iiste.org ISSN, 10(29).
58. Obschonka, M., Silbereisen, R. K., Cantner, U., & Goethner, M. (2015). Entrepreneurial self-identity: predictors and effects within the theory of planned behavior framework. *Journal of Business and Psychology*, 30, 773-794.
59. Oftedal, E. M., Iakovleva, T. A., & Foss, L. (2018). University context matter: An institutional perspective on entrepreneurial intentions of students. *Education+ Training*, 60(7/8), 873-890.
60. 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.
61. Palmer, C., Fasbender, U., Kraus, S., Birkner, S., & Kailer, N. (2021). A chip off the old block? The role of dominance and parental entrepreneurship for entrepreneurial intention. *Review of Managerial Science*, 15(2), 287-307.
62. Pham, M., Lam, B. Q., & Le, V. P. T. (2023). The e-entrepreneurial intention of students: The role of self- efficacy and education. *Entrepreneurial Business and Economics Review*, 11(1), 127-143.
63. Pidduck, R. J., Clark, D. R., & Lumpkin, G. T. (2023). Entrepreneurial mindset: Dispositional beliefs, opportunity beliefs, and entrepreneurial behavior. *Journal of Small Business Management*, 61(1), 45-79.
64. Salameh, A. A., Akhtar, H., Gul, R., Omar, A. B., & Hanif, S. (2022). Personality traits and entrepreneurial intentions: Financial risk-taking as mediator. *Frontiers in Psychology*, 13, 927718.
65. Santos, F. J., Roomi, M. A., & Liñán, F. (2016). About gender differences and the social environment in the development of entrepreneurial intentions. *Journal of Small Business Management*, 54(1), 49-66.
66. Segal, G., Borgia, D., & Schoenfeld, J. (2002). Using social cognitive career theory to predict self-employment goals. *New England Journal of Entrepreneurship*, 5(2), 47-56.
67. Shirokova, G., Osiyevskyy, O., & Bogatyreva, K. (2016). Exploring the intention–behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. *European Management Journal*, 34(4), 386-399.
68. Siu, W. S., & Lo, E. S. C. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. *Entrepreneurship Theory and Practice*, 37(2), 147-173.
69. Thevanes, N. (2021). The Mediating Effects of Entrepreneurship Intention on the Relationship between Perceived Behavior Control and Startup Preparation: An Empirical Study in a Selected University in Sri Lanka. *IUP Journal of Entrepreneurship Development*, 18(4).
70. Thrikawala, S. (2011). The determinants of entrepreneurial intention among academics in Sri Lanka. *International Proceedings of Economics Development & Research*, 4, p454-468.
71. Troise, C., Ben-Hafaïedh, C., Tani, M., & Yablonsky, S. A. (2022). Guest editorial: New technologies and entrepreneurship: exploring entrepreneurial behavior in the digital transformation era. *International Journal of Entrepreneurial Behavior & Research*, 28(5), 1129-1137.
72. Tseng, T. H., Wang, Y. M., Lin, H. H., Lin, S. J., Wang, Y. S., & Tsai, T. H. (2022). Relationships between locus of control, theory of planned behavior, and cyber entrepreneurial intention: The moderating role of cyber entrepreneurship education. *The International Journal of Management Education*, 20(3), 100682.
73. Utami, C. W. (2017). Attitude, subjective norm, perceived behaviour, entrepreneurship education and self efficacy toward entrepreneurial intention university student in Indonesia.

74. Villanueva-Flores, M., Hernández-Roque, D., Díaz-Fernández, M., & Bornay-Barrachina, M. (2023). Exploring the mediation role of perceived behavioural control and subjective norms in the relationship between psychological capital and entrepreneurial intention of university students. *The International Journal of Management Education*, 21(3), 100865.
75. Wang, X. H., You, X., Wang, H. P., Wang, B., Lai, W. Y., & Su, N. (2023). The effect of entrepreneurship education on entrepreneurial intention: mediation of entrepreneurial self-efficacy and moderating model of psychological capital. *Sustainability*, 15(3), 2562.
76. Wijayati, D. T., Fazlurrahman, H., Hadi, H. K., & Arifah, I. D. C. (2021). The effect of entrepreneurship education on entrepreneurial intention through planned behavioural control, subjective norm, and entrepreneurial attitude. *Journal of Global Entrepreneurship Research*, 11(1), 505-518.
77. Yasir, N., Mahmood, N., Mehmood, H. S., Rashid, O., & Liren, A. (2021). The integrated role of personal values and theory of planned behavior to form a sustainable entrepreneurial intention. *Sustainability*, 13(16), 9249.
78. Zahoor, N., Khan, Z., Meyer, M., & Laker, B. (2023). International entrepreneurial behavior of internationalizing African SMEs—Towards a new research agenda. *Journal of Business Research*, 154, 113367.
79. Zhang, L., Fu, Y., Wei, Y., Chen, H., Xia, C., & Cai, Z. (2022). Predicting entrepreneurial intention of students: Kernel extreme learning machine with boosted crow search algorithm. *Applied Sciences*, 12(14), 6907.
80. Zhang, P., Wang, D. D., & Owen, C. L. (2015). A study of entrepreneurial intention of university students. *Entrepreneurship Research Journal*, 5(1), 61-82.