

ARTICLE

# Examining Perceived Barriers to Entrepreneurial Behaviour: A Mixed-Method Study

Pushendra Singh <sup>1, \*</sup> and Amit Mookerjee<sup>1, †</sup>

<sup>1</sup>Delhi Technological University, Shahbad Daultpur, Bawana Road, Delhi 110042, India

\*drpushendrasingh@gmail.com

†amookerjee@dtu.ac.in

## Abstract

The various obstacles to entrepreneurship include economic, social, and institutional issues that prevent people from engaging in entrepreneurial pursuits. Potential entrepreneurs are frequently discouraged from implementing their ideas due to economic constraints, regulatory restrictions, fear of failure, and complicated legal processes. In this pursuit, the present study examined entrepreneurship students' perceptions regarding barriers with the help of a mixed-method approach. Firstly, in a qualitative study, two focused group discussions were conducted. The thematic analysis enlists five common barriers: subjective norms, attitude towards entrepreneurship, perceived behavioural control (PBC), policy support, and perceived financial risk. Secondly, the relationships between these five barriers to entrepreneurship, entrepreneurial intention, and entrepreneurship behaviour were studied with the help of a quantitative study. A sample of 412 students revealed that five barriers significantly abrupt the entrepreneurial intentions of budding businessmen. Also, a statistically significant positive association was reported between entrepreneurial intention and entrepreneurship behaviour.

**Keywords:** Entrepreneurship, Barriers, Entrepreneurial Intention.

## 1 Introduction

Since the turn of the century, the place of entrepreneurship in society has become prominent. J. A. Schumpeter is mainly responsible for advancing our understanding of entrepreneurship. In contrast to other authors, Schumpeter used a novel method for elucidating entrepreneurs and the significance of innovation. He claimed that business owners are production coordinators and innovators, making them change agents. He suggested that entrepreneurship occurs under five conditions of newness: new goods, new production methods, new markets, new sources of materials, or new organizations (Schumpeter, 1911). Subsequently, different authors have given hundreds of definitions for entrepreneur and entrepreneurship. Herron and Robinson (1993) reported that "entrepreneurship is the set of behaviours that initiates and manages the reallocation of economic resources and whose purpose is value creation through those means." (p. 283).

Further, Gries and Naudé (2011) stated that "entrepreneurship is the resource, process, and state of being through and in which individuals utilize positive opportunities in the market by creating and growing new business firms." (p. 217). A more recent and comprehensive explanation for entrepreneurship is given by Toma et al. (2014). According to Toma et al. (2014), entrepreneurship is a creative human process that mobilizes resources from one level of productivity to another, a

superior one. It implies the individual's will to take on responsibilities and the mental ability to carry out the task from idea to implementation (Toma et al., 2014). Another entrepreneurship component is identifying opportunities where others find only chaos, contradictions, or confusion (Toma et al., 2014). The essence of entrepreneurship lies in walking against time with wisdom and maturity and serving as an agent for change (Toma et al., 2014). According to Schumpeter (1934), entrepreneurship is one of the most crucial prerequisites for societal growth and employment generation. Entrepreneurship is important because it is the economic mechanism through which inefficiencies in economies are identified and mitigated (Baum et al., 2007). According to the OECD (1998), "entrepreneurship is central to the functioning of market economies." In recent years, entrepreneurship has constituted a significant source of job creation and has contributed to economic growth and national prosperity (Toma et al., 2014). Factors like newness through start-ups and innovations link entrepreneurship to economic growth.

Given that entrepreneurship is seen as a critical contributor to economic growth (Audretsch & Keilbach, 2004), there has been much discussion on persuading young people to pursue entrepreneurship as a career in academia and among policymakers (Souitaris et al., 2007). According to scholarly discourse, the main predictor of actual entrepreneurial activity is the drivers of entrepreneurial intention (EI) (Hsu et al., 2017). Policymakers and educators need to understand what motivates entrepreneurial behaviour to enhance the efficacy of public policies and educational initiatives. Entrepreneurial intents are an entrepreneur's state of mind that focuses attention, experience, and action on a business notion (Bird, 1988). EI is the first stage of the entrepreneurship process. Because it is the purpose translated into behaviour, intention is regarded in social psychology as the most direct and significant antecedent of behaviour. As a result, EI is a powerful indicator of entrepreneurial job choice (Ajzen, 1991). Strong economic growth requires understanding entrepreneurial ambitions and the causes that lead to these intentions (Bird, 1988). A sizable body of literature has addressed the idea of entrepreneurial intentions since the late 1980s, viewing much of entrepreneurship as intentional behaviour and the development of an intention to start a business as the first step in the process of founding an organization (e.g., Bird, 1988; Kolvereid, 1996; Krueger et al., 2000). However, a few entrepreneurial studies have only studied the relationship between intention and conduct (Kautonen et al., 2015). However, entrepreneurship is more about deeds than just words, and the degree to which entrepreneurial deeds become intentions determines the applicability of entrepreneurial intention research. Based on the Theory of Planned Behaviour (TPB), the present study aspires to explore various perceived barriers to entrepreneurs from students' perspectives. Several courses and degrees on entrepreneurship offer students a comprehensive view of the entrepreneurial ecosystem. Saini and Dangi (2019) suggest that social media analytics help marketers identify segments and know customers' appeal towards a particular brand. Kovid et al. (2023) show that women entrepreneurs' innovativeness positively impacts financial and non-financial firm performance. However, an acute dearth of studies explores barriers to entrepreneurship perceived by these business enthusiasts. Using qualitative and quantitative methodologies, the present study first explores various barriers to entrepreneurship using a qualitative study (focus group discussion). Later on, it explores the relationships between barriers, intentions, and behaviours through the quantitative methodology.

## 2 Literature Review

### 2.1 Theory of Planned Behaviour (TPB)

According to Choo and Wong (2009), entrepreneurial intention is the pursuit of knowledge that can be applied to the objective of venture development. According to Thompson (2009, p. 676), entrepreneurial intention is the "self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future." Ajzen (1991) defines intention as "a person's readiness to perform a given behaviour." Intentions are understood as capturing the motivational factors that influence behaviour. They indicate how hard an individual is willing to try and how much effort they plan to exert to perform the behaviour (Lortie & Castogiovanni, 2015). People who want to launch a business are inclined to act logically to accomplish their objectives. Henley (2007) argues that starting a business is a deliberate activity because many people make their plans known at least a year before they launch their new business. This suggests a connection between entrepreneurship and intention. A person is likelier to engage in a behaviour if his/her intention is stronger. As a result, Fishbein and Ajzen (1975) found that the intention to engage in a given behaviour can predict that action or behaviour.

The first antecedent to intention formation is attitude. Their attitude towards that behaviour influences their willingness to engage in a particular behaviour (Ajzen, 1991). Ajzen (1991, p. 188) described the attitude one holds towards a behaviour as "the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question." Their subsequent intentions will be formed depending on how favourably individuals evaluate behaviours. Personal attitude is the degree to which someone has a favourable or unfavourable personal impression of starting their own business. The second antecedent to intention formation is subjective norms. Subjective norms refer to the perceived social pressure to perform or not perform the behaviour in question (Conner & Armitage, 1998). Subjective norms are simply the perception that an individual holds about how important it is that others or groups approve or disapprove of performing a given behaviour (Ajzen, 1991). Family, significant others, and close friends are examples of essential referent others. Subjective norms evaluate perceived social pressure from family, friends, or others, which can be a source of conflict when deciding whether to pursue an entrepreneurial career (Ajzen, 1991). In other words, one's perceptions of how others perceive a specific activity are reflected in their attitudes toward the subjective norms for that behaviour.

In the TPB, the subjective norms factor or construct is a social force influencing an individual's decision-making (Conner

& Armitage, 1998; Park, 2000). Subjective norms are a function of salient normative beliefs (Armitage & Conner, 2001). The normative beliefs that underpin subjective norms are concerned with the individual's perception of the likelihood of how important referent individuals or groups will react to their behaviour (Armitage & Conner, 2001). As a result, an individual's perception of the surrounding world may be permissible or non-permissible to be entrepreneurial, depending on the prevailing social context. The TPB model extends the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The TPB only differs from the Theory of Reasoned Action by including the construct of perceived behavioural control (PBC). In truth, the two theories are remarkably similar. PBC refers to the perceived ease or difficulty of performing the behaviour by the individual (Kautonen et al., 2015; Ramsay et al., 2010). PBC refers to one's perception of situational competence, which influences how easy or difficult it is to engage in a specific behaviour of interest or conduct (Ajzen, 1991). In situations where the individual has a very high degree of control over their behaviour, intention is a sufficient predictor of the individual exerting effort and taking action to achieve the goal (Ajzen, 1991). Ajzen (1991) argued that intentions alone are sufficient for predicting behaviours individuals have complete volitional control over. In such circumstances, intention fully mediates the effect of PBC. However, as volitional control over the behaviour decreases, PBC becomes increasingly essential in determining subsequent behaviour (Ajzen, 1991). In situations where there are problems with control, PBC should also contribute to predicting behaviour, over and above its partially mediated effect via intention, by serving as a proxy for actual behavioural control (Ajzen, 1991).

## 2.2 Theory of Planned Behaviour (TPB) in entrepreneurship research

Scholars have studied EI formation factors for over 35 years since the publication of Shapero's (1975) article. Lortie and Castogiovanni (2015) asserted that the TPB has been used to explain and predict many entrepreneurial intentions and behaviours. In the related literature, EI is influenced by several factors, such as internal factors (e.g., personality traits) (Brandstätter, 2011; Littunen, 2000), external factors (e.g., environmental factors) (Fayolle, 2008; Yeoh & Jeong, 1995), or other contextual factors (Brinckmann et al., 2010; Zahra, 1995). Krueger and Carsrud (1993) were the first to use TPB to predict entrepreneurial intent. Since then, several EI researchers have contributed to the field of study using the fundamental TPB model or, in most cases, modified TPB. Determining intention is at the centre of all studies, which comes before action and focuses on a specific objective, like starting a new firm (Bird, 1988; Krueger & Carsrud, 1993). Various entrepreneurship intentions have been tested in the related literature, such as the intention to create a new venture, develop a new venture, recognize opportunities, innovate, etc. Besides, several authors have also studied entrepreneurship behaviours—for instance, venture creation, new venture development, informal entrepreneurial investment, etc.

Subjective norms reflect people's perceived expectations toward salient others (Ajzen, 1991). Subjective norms function as a signal that positively or negatively influences an individual's perception by sending a message from a group of reference persons, such as family, friends, and significant others. Individuals frequently state that they pursued or did not pursue an entrepreneurial career due to their family's expectations (Dyer & Handler, 1994). Further, in their conceptual paper, Boyd and Vozikis (1994) proposed that entrepreneurial PBC would directly affect future entrepreneurial venture creation in an individual's life. Kolvereid (1996) was one of the first to use the TPB to explain and predict individuals' intentions to create a new venture and found support for attitudes, subjective norms, and PBC as antecedents to venture creation intentions. Arenius and Kovalainen (2006) found support for subjective norms and PBC relating to venture creation intentions in their four Nordic countries' sample in the Global Entrepreneurship Monitor (GEM) dataset. Carr and Sequeira (2007) found support for the three main antecedents of venture creation intentions and support for prior family business exposure as an antecedent to attitudes, subjective norms, and PBC. Also, Souitaris et al. (2007) found evidence of an entrepreneurship program affecting the attitudes, subjective norms, PBC, and intentions to create a new venture for students who took the educational program. Kautonen et al. (2015) found that attitude, subjective norms, and PBC all contributed to the explanation of 59% of the variation in intention in the context of a start-up business. Additionally, according to Kautonen et al. (2015), intention and PBC accounted for 31% of the difference in future behaviour (in this case, conduct related to business start-ups). It is clear from the findings above that the TPB can be used as a theoretical foundation for explaining and forecasting the intention to start a new venture.

Existing factors influencing intentions are inadequate to explain entrepreneurial intention formation. Two additional factors have been identified, and their justification is presented below.

## 2.3 Policy support as a barrier to EI

It is widely accepted that entrepreneurs face substantial barriers (for instance, a need for more resources) which deter potential entrepreneurs from pursuing this route. Chowdhury (2007) explains that political instability, corruption, a lack of infrastructure facilities, education and training, and financial help all pose barriers to entrepreneurship in developing nations. In this regard, it has been observed that favourable institutions and policies encourage entrepreneurial activity (Autio & Fu, 2015). Governments play a crucial role in enhancing the ability of individuals to act entrepreneurially (Prakash et al., 2015). Many studies have reported that government policy has the power to influence entrepreneurial activity. Hence, governments worldwide should frame policies to overcome these obstacles (Prakash et al., 2015). Kressel and Lento (2012) have correctly stated that "entrepreneurs need access to resources and markets to succeed, and this is where national policies play a vital role" (p. 6). Public policies can play an essential role in encouraging entrepreneurship and thus stimulating economic growth (Audretsch, 2004). Fayolle and Lióán (2014) recommend investigating how public policies

affect entrepreneurial intentions. Hence, it provides an impetus to examine policy support as a predictor of EI.

Policy support is an umbrella term that encompasses many aspects. It is multifaceted and could be reflected through financial means such as loans and credits and non-financial means, including information provision and consultancy (Cumming & Fischer, 2012; Mole, 2002). To date, various policies have been proposed to encourage entrepreneurship. One common form of policy support is a subsidy. Subsidies are offered to support the best business ideas and are paid to people to open their businesses and examine tournaments (Hamilton et al., 2014). Public policy shapes competition rules and creates niches where investment and entrepreneurial activities seem more attractive (Aldrich & Martinez, 2007). The previous research linking entrepreneurship policies with entrepreneurial intentions provided mixed findings (Djankov et al., 2002; Engle et al., 2011; Van Stel et al., 2007). In other words, evidence on the impact of public policies aimed at increasing entrepreneurship has been mixed. For example, Djankov et al. (2002) suggest an explicit link between specific regulatory arrangements, such as the ease of setting up a business, and the rate of entrepreneurship; Van Stel et al. (2007) find the opposite. Similarly, Turker and Sonmez Selçuk (2009) conclude that perceived structural support (e.g., access to bank loans and institutional arrangements) exerts a positive impact on entrepreneurial intention, whereas other research using perceptual measures of public policies indicates a marginal impact on entrepreneurial intent (Engle et al., 2011).

Tang (2008) posits that financial and non-financial support from local institutions increases individuals' engagement with business opportunities and could potentially increase entrepreneurial behaviour. On the contrary, Hamilton et al. (2014) found that policies encouraging entrepreneurship could be more effective. Scholars have emphasized that government policies, characteristics of the local context (e.g., availability of logistic infrastructure, financial investors, and externalities), and, more specifically, university support mechanisms influence entrepreneurial activities (Morris & Lewis, 1995; Fini et al., 2009). Governments may intervene with funding schemes, tax policies, and other support mechanisms to mitigate market inefficiencies and promote entrepreneurship (Lerner, 1999). According to a recent study, students who take the government's long-term policies as support to start their venture were found to be significantly higher in entrepreneurial intensity, frequency of entrepreneurial activities, risk-taking ability, proactiveness, and innovativeness than those students who are not considering these policies (Prakash et al., 2015). Further, a study by Choi and Phan (2006) provides evidence that entrepreneurial policy factors that vary over time can materially impact the variations in entrepreneurial intensity.

#### 2.4 Perceived financial risk as a barrier to EI

Perceived risk is an individual's belief about the potential negative outcome and uncertainty that can arise from pursuing entrepreneurship. One of the most common forms of perceived risk is financial risk. Financial risk is the potential monetary outlay associated with establishing a business or start-up and subsequent cash outflows. Financial risk is associated with the costs and uncertainty of pursuing entrepreneurship. Napp (2011) asserts that there are several types of financial risk. Finance risk, bankruptcy risk, and liquidity risk are three examples of internal sources of financial risk that arise in the context of a corporation.

On the one hand, external forms of financial risk are related to developments in financial markets. Belás et al. (2018) state that financial risk refers to the possibility that a business's cash flows do not suffice to pay creditors and fulfil other financial responsibilities. Financial risk focuses specifically on the monetary loss associated with the uncertainty of the entrepreneurship process. Perceived financial risks may include the possibility of income loss and bankruptcy during the process of establishing and running a venture or business. Brockhaus (1980) points out that the main concern for potential entrepreneurs may be the perceived level of financial risk and the amount of financial loss associated with a new business failure. For some people, the loss of money or a reduction in family income due to a business collapse will have a financial impact. An individual could suffer significant financial losses if Personal debt creates trouble for the entrepreneur if the venture fails. Financial instability is one of the most significant elements that has been shown to have a detrimental impact on entrepreneurial intention, according to Van Gelderen et al. (2008). Recently, Krichen and Chaabouni (2021) found that for students who perceive the COVID-19 crisis as an opportunity, financial risk is negatively associated with the perceived probability of becoming entrepreneurs. In other words, the perceived financial risk for students negatively affected their entrepreneurial intentions during the pandemic. In the context of the tourism sector, Alfandi (2020) asserted that perceived financial risk significantly impacted tourists' behavioural intentions in Jordan.

#### Objectives

- i. To critically examine present literature related to barriers to entrepreneurship.
- ii. To identify barriers to entrepreneurship, especially in the Indian context, through qualitative research.
- iii. To propose and validate a model related to barriers to entrepreneurship, entrepreneurial intention, and entrepreneurial behaviour.

#### Hypotheses

- H1: Subjective norms influence entrepreneurial intentions.  
 H2: Attitude influences entrepreneurial intentions.  
 H3: Perceived Behavioural Control influences entrepreneurial intentions.  
 H4: Policy Support influences entrepreneurial intentions.  
 H5: Perceived Financial Risk influences entrepreneurial intentions.

H6: Subjective norms influence entrepreneurial intentions.

### Methodological framework

**Research Design:** A two-stage research design has been used in the present research. The first part involves exploratory research followed by a single cross-sectional research design.

**Questionnaire Design:** The survey instrument is designed on a five-point Likert scale, with 1 being Strongly Disagree and 5 being Strongly Agree. The sources of these items are mentioned in the table below:

**Table 1: The measurement items and their sources**

Construct	Measurement items	Source
Subjective norm	My closest family member thinks that starting a business is risky.	Shahverdi et al., 2018; Ratten & Jones, 2018
	I believe that my closest friend thinks that starting a business is risky.	
	I believe that my colleagues think that starting a business is risky.	
Policy support	Policy support helps me to gather relevant information.	Ezeani,2018; Nsanzumuhire et.al.,2021
	Policy support helps me in starting a business cost-efficiently.	
	Policy support gives a clear idea about the competition level of the market.	
Perceived behavioural control	For me, starting a business would be very easy.	Bobera et al.,2014; Bayraktar,2016; Jahani et al.,2016
	I can easily pursue a career as an entrepreneur.	
	There are a few issues that I cannot influence myself but rather prevent me from starting a business.	
Perceived financial risk	I can manage the financial risk associated with my business easily.	Kearney & McHattie,2014; Lafuente & Gómez Araujo, 2016; Mehtap et al.,2017
	Financial risks are under manageable magnitude.	
	Financial risks will lead to problems for me and my family.	
Entrepreneurship attitude	I think entrepreneurship will lead to success without boundaries.	Dong et al., 2022
	I think entrepreneurship requires huge funds to be invested.	
	I think entrepreneurship requires patience.	
Entrepreneurship attitude	I want to create a business to create profits and live a luxurious life.	Jones & Warhuus , 2018; Achtzehn et al.,2023
	I want to do entrepreneurship to prove my knowledge and skills.	
	I want to do entrepreneurship to serve society by offering services, creating jobs and other social responsibilities.	
Entrepreneurship behaviour	I want to take risks because profit is a reward for taking risks.	Braches & Elliott,2017; Prakash et al.,2015; Khalid et al.,2022
	I take a problem as an opportunity to create something new.	
	I am confident that my business idea is creative for the industry.	

### 3 Sample and data collection

Based on the TPB model, the present study examines the perceived barriers to entrepreneurship behaviour of entrepreneurial students using a mixed-method approach. Firstly, two focused group discussions (FGD) were conducted in a qualitative study. In the first FGD, eight entrepreneurship students enrolled in MBA (Innovation, Entrepreneurship, and Venture Development) were asked to discuss their problems while setting up their venture. In the second FGD, four professors of entrepreneurship and four businessmen were requested to discuss the barriers to present entrepreneurs. The transcripts of two FGDs were subjected to thematic analysis to identify significant barriers to entrepreneurial behaviour. The selection of respondents for qualitative research was based on the premise that it is essential to understand the viewpoint of significant stakeholders. Students were selected based on convenience and their consent to participate in FGD. These comprise people with different academic backgrounds in their graduation level and have varied work experience. Four Professors who are actively engaged in teaching courses in entrepreneurship were selected. Two work at State Government Technical University, and the remaining two work in private educational institutions. Similarly, four practising entrepreneurs working in different industries and based in Delhi were selected for convenience and willingness to participate in research. The two qualitative studies highlighted five common barriers: subjective norms, attitude toward entrepreneurship, perceived behavioural control (PBC), policy support, and perceived financial risk. Based on these extracted barriers, a questionnaire of fifteen statements was framed. Secondly, a sample of 412 students enrolled in entrepreneurship courses was collected. Cochran (1977) suggested a sample size of 384 at a 0.05 significance level.

Further, a rule of thumb suggested by Hair et al., 2011 indicates that a minimum of ten respondents shall be contacted per statement. As per this criteria, a sample size of 150 or more was sufficient in the present study. Most previous research indicates that the response rate is usually high when responses are collected in person. Accordingly, considering a response rate of 60–70%, 600 potential respondents enrolled in different educational institutes of the Delhi-NCR region were approached through convenient sampling. Table 1 reports the demographic description of the sample.

Source: Primary data

Table 2: Demographic profile of samples

Variable	Category	Frequency
Marital Status	Married	208
	Unmarried	200
	Divorced	4
Age	Below 25 years	219
	26- 35 years	167
	36-45 years	26
Experience	Below five years	225
	6-15 years	172
	16- 25 years	15
<b>Total</b>		<b>412</b>

### 3.1 Measures

The five barriers (subjective norms, attitude towards entrepreneurship, perceived behavioural control (PBC), policy support, and perceived financial risk) to entrepreneurs were measured with the help of fifteen statements rated on a five-point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). A few scale items were “Government support plays a pivotal role in encouraging entrepreneurs of the country” and “Potential financial risk restricts free entrepreneurial spirit.” Entrepreneurial Intention is measured using the Entrepreneurial Intention Inventory (EII) developed by Liñán and Chen (2009), based on four aspects: target, action, context, and time. It comprises six statements rated over a seven-point scale ranging from 1 (totally disagree) to 7 (totally agree). A few items of the scale are “I am ready to do anything to be an entrepreneur” and “My professional goal is becoming an entrepreneur.”

### 3.2 Data Analysis

The collected data were analyzed in two stages. Firstly, reliability, validity, and multicollinearity were assessed using appropriate statistical measures like Cronbach’s alpha, composite reliability, and average variance explained. Secondly, the relationship between different barriers to entrepreneurship, entrepreneurial intention, and entrepreneurship behaviour was accessed with the help of AMOS.

### 3.3 Results

**Reliability, Validity, Multicollinearity, and Common Method Bias** The Cronbach’s alpha (CA) and composite reliability (CR) estimates measure internal consistency reliability, whose values should be 0.70 or above to establish the reliability of measures. Table 2 suggests that CA values of subjective norms, attitude towards entrepreneurship, perceived behavioural control, policy support, perceived financial risk, entrepreneurial intention, and entrepreneurship behaviour are 0.756, 0.842, 0.767, 0.900, 0.803, 0.895, and 0.921, respectively. The CR values of subjective norms, attitude towards entrepreneurship, perceived behavioural control, policy support, perceived financial risk, entrepreneurial intention, and entrepreneurship behaviour are 0.776, 0.865, 0.837, 0.958, 0.863, 0.708, and 0.817, respectively. It reflected the high internal consistency of all variables of the study. The convergent validity was examined using Average Variance Explained (AVE) values, whose values should be greater than 0.50, to establish the validity of a construct. Table 2 suggests that AVE values of subjective norms, attitude towards entrepreneurship, perceived behavioural control, policy support, perceived financial risk, entrepreneurial intention, and entrepreneurship behaviour are 0.501, 0.715, 0.508, 0.701, 0.546, 0.658, and 0.745, respectively. The divergent validity of the five dimensions of barriers to entrepreneurship was investigated with the help of Fornell and Larcker’s (1981) criterion, according to which the square root of AVE values should be greater than the correlation between the five barriers. Table 3 established divergent validity. The issue of multicollinearity among the five barriers of entrepreneurship was examined using the Variance Inflation Factor (VIF), whose recommended values are less than 3 (Kline, 2012). The values of VIF indicated in Table 2 suggested the absence of significant multicollinearity. Since all variables were measured simultaneously, common method bias is possible. Several procedural and statistical measures were used to minimise it. Firstly, pre-validated scales of entrepreneurial intention and entrepreneurship behaviour were used in this study. Secondly, respondents were also assured confidentiality and strict academic use of the collected data. They were also ensured that the collected data would not be shared with any third party without their consent. These minute steps encourage accurate and positive responses (Podsakoff et al., 2012). Lastly, Harman’s one-factor test was used to examine the significance of common method bias. When all study items were subjected to factor analysis using varimax rotation, no single factor explained most of the variations. The single most significant factor could explain the 31.70% variance. These values recommended insignificant common method variance in this study.

Table 3: Descriptive statistics, reliability, and validity estimates

Variable	Mean	SD	CA	CR	AVE	VIF
SN	3.83	1.145	0.756	0.776	0.501	2.144
ATE	3.77	0.849	0.842	0.865	0.715	1.859
PBC	3.90	1.280	0.767	0.837	0.508	1.456
PS	4.14	0.964	0.900	0.958	0.701	2.485
PFR	4.45	1.748	0.803	0.863	0.546	2.859
EI	3.70	0.795	0.895	0.708	0.658	---
EB	5.28	1.885	0.921	0.817	0.745	---

Source: Primary data, CA-Cronbach's alpha, CR- Composite reliability, AVE- Average variance explained, VIF- Variance Inflation Factor, SN-subjective norms, AE-attitude towards entrepreneurship, PBC-perceived behavioural control, PS-policy support, PFR-perceived financial risk, EI-entrepreneurial intention, EB-entrepreneurship behaviour.

#### 4 Interrelationship between five barriers to entrepreneurship, entrepreneurial intention, and entrepreneurship behaviour

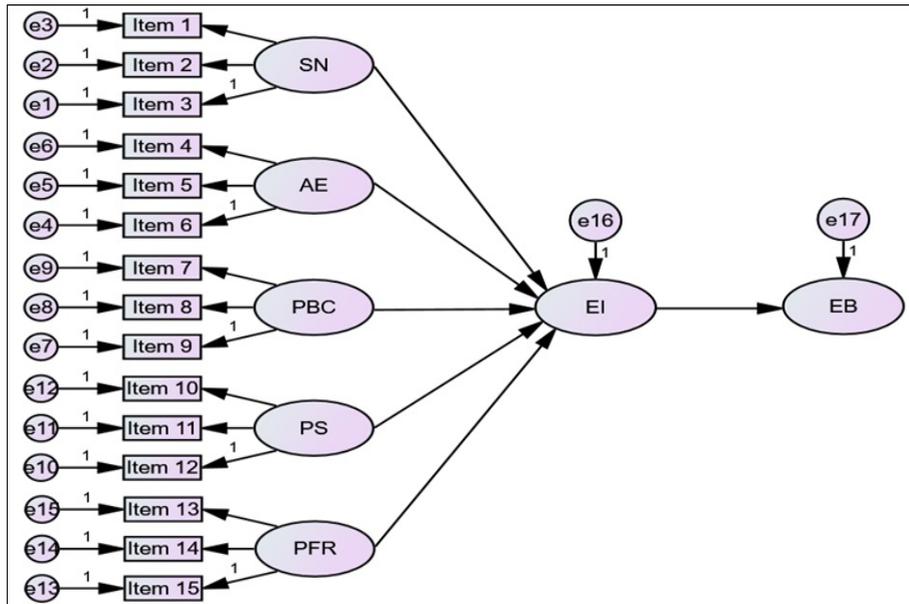
The interactions between five extracted barriers to entrepreneurship, entrepreneurial intention and entrepreneurship behaviour were explored in two steps. In the first stage, correlations were examined between these variables. Secondly, model fitness (refer to Figure 1) was ascertained through structural equation modelling in AMOS. Table 3 reports that all five barriers to entrepreneurship are negatively associated with correlation coefficients of -0., -0., -0., -0. and -0. for subjective norms, attitude towards entrepreneurship, perceived behavioural control, policy support, and perceived financial risk. Extracted barriers put significant restrictions on entrepreneurial intentions. It is also suggested that entrepreneurial intentions are significantly positively correlated with entrepreneurship behaviour with a correlation coefficient value of 0.684, which reestablishes the fact that intention precedes the actual behaviour. Figure 1 depicts the initial AMOS model. The acceptable model fit indices are  $RMSEA < 0.08$ ,  $SRMR \leq 0.05$ ,  $GFI \geq 0.95$ ,  $CFI \geq 0.97$ , and  $TLI > 0.90$  (Bentler & Bonett, 1980; Xia & Yang, 2019). The initial model suggested a slightly weak model fit with  $RMSEA=0.09$ ,  $SRMR=0.472$ ,  $GFI=0.93$ ,  $CFI=0.96$ , and  $TLI=0.91$ . It reflects a need to modify the model. Upon close observation, it was revealed that the loading of the two statements was too low (Government support plays a pivotal role in encouraging entrepreneurs of the country= 0.277 and Potential financial risk restricts free entrepreneurial spirit=0.198). Hence, these statements were deleted. The revised model exhibits excellent fit with model fit indices of  $RMSEA=0.72$ ,  $SRMR=0.466$ ,  $GFI=0.94$ ,  $CFI=0.97$ , and  $TLI=0.93$ . Figure 2 represents the revised model along with regression weights. The five barriers to entrepreneurship (subjective norms, attitude towards entrepreneurship, perceived behavioural control, policy support, and perceived financial risk) have regression weights of -0.431, -0.468, -0.409, -0.516, and -0.397. The results established that these barriers significantly hamper students' aspirations and intentions to develop their ventures. A regression weight of 0.488 was observed between entrepreneurial intentions and entrepreneurship behaviour.

Table 4: Correlation matrix

Variable	SN	ATE	PBC	PS	PFR	EI	EB
SN	1						
ATE	.411*	1					
PBC	.373*	.360*	1				
PS	.472*	.474*	.288*	1			
PFR	.388*	.453*	.374*	.423*	1		
EI	-.577*	-.619*	-.467*	-.578*	-.465*	1	
EB	-.421*	-.558*	-.448*	-.580*	-.588*	.684*	1

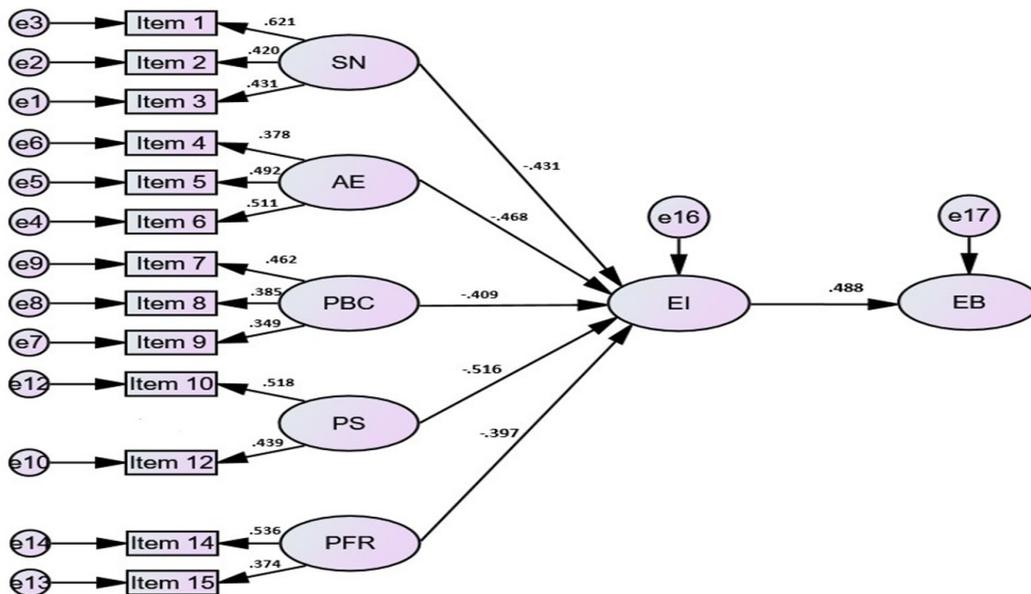
Source: Primary data, \*Sig at 0.05, level of significance, SN-subjective norms, AE-attitude towards entrepreneurship, PBC-perceived behavioural control, PS-policy support, PFR-perceived financial risk, EI-entrepreneurial intention, EB-entrepreneurship behaviour.

Figure 1: Initial AMOS model



Source: Primary data

Figure 2: Final AMOS model



Source: Primary data

## 5 Discussion

Entrepreneurship is the backbone of any economy. It is especially pivotal for developing countries like India, which rely on their homegrown ventures to not only cater to the needs of people through customization and localization but also to accelerate their economic growth. Young entrepreneurs promote economic growth, provide products and services, encourage innovation and creativity, and encourage fellow countrymen to work on their dream of becoming job providers rather than job seekers (Ahl, 2006). Acknowledging the importance of entrepreneurship, countries like India have started various academic courses to equip students with an adequate understanding of the entrepreneurship ecosystem. These courses or degrees are designed to educate new business enthusiasts about entrepreneurship’s behavioural, financial, regulatory, technological, and social facets. Another motive of these courses is to make students aware of the perceptual barriers to entrepreneurship. These barriers include financial barriers, intense competition, lack of practical knowledge,

inadequate market experience, and environmental barriers such as regulations and market competition. However, researchers have reported a need for studies exploring students' perceived barriers. An adequate understanding of such a critical paradigm would help educators and policymakers frame courses to deal with perceived barriers in entrepreneurs' early stages. Accordingly, the present study examined entrepreneurship students' perceptions regarding barriers with the help of a mixed-method approach.

The findings of the study offer several significant theoretical and practical implications. It applies and extends the theory of planned behaviour by encouraging its application in entrepreneurship. The original theory covers three major issues—attitude, subjective norms, and perceived behavioural control. When applied to entrepreneurship studies, the present study offers two more variables in the model—policy support and perceived financial risk. Although subject to further discussion and deliberations among researchers, it paves the way for the extension of the theory of planned behaviour. Practically, the study's findings offer a deep insight into the perceived barriers to entrepreneurship. The academicians could add these barriers in their coursework to help future entrepreneurs deal with these issues at the beginning of their entrepreneurial journeys. The removal of these perceived blockages would motivate the young students. Also, policymakers may look at these barriers and assess various policies to remove these barriers.

**Limitation:** Although the study offers significant findings, they are also marred with a few limitations. Firstly, the study is restricted to the Delhi-NCR region only, which might reduce the generalization of the results. Future researchers may explore the barriers in different cultural contexts. Also, the findings are based on a sample of 412 students only. Although the sample size is statistically adequate, extending an existing theory requires a more significant, small size with a heterogeneous population.

## 6 Conclusion

In conclusion, barriers to entrepreneurship are formidable challenges aspiring entrepreneurs must navigate on their journey to success. These obstacles can take various forms, including financial constraints, regulatory hurdles, market saturation, and even personal doubts and fears. However, it is essential to recognize that while these barriers can be daunting, they are not insurmountable. With determination, resilience, creativity, and a strategic approach, entrepreneurs can overcome these obstacles and turn them into opportunities for growth and innovation. Moreover, governments, institutions, and communities can play a pivotal role in reducing these barriers by implementing supportive policies, providing access to resources, and fostering a culture of entrepreneurship. In doing so, we can empower more individuals to pursue their entrepreneurial dreams and drive economic and social progress. Ultimately, the path to entrepreneurship may be challenging, but the rewards of innovation, job creation, and economic development make it a journey worth undertaking. Entrepreneurship has become a crucial policy tool for regional development, economic expansion, and job creation. The Schumpeterian perspective holds that the entrepreneurial process is one of the most important aspects of a region's or nation's economic development. Entrepreneurship and economic progress are now inextricably connected, according to notions of "industrial evolution." These theories emphasize the importance of information in navigating change, which they see as the critical element.

**Implications:** Governments at various levels are making efforts to promote entrepreneurship. The government has launched various initiatives like Start Up India program to create a favourable ecosystem in India. However, it has yet to result in a significant shift in mindset. The present research work may help create policies that address barriers identified in the present study, especially policy support and perceived financial risk.

## References

- Achtzehn, S., Treanor, L., & Amess, K. (2023). Do enterprise education competitions have gendered outcomes amongst STEM early-career researchers? *International Small Business Journal*, 41(8), <https://doi.org/10.1177/02662426231158281>
- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, 30(5), 595–621. <https://doi.org/10.1111/j.1540-6520.2006.00138.x>
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs: Prentice-Hall.
- Aldrich, H. E., & Martinez, M. A. (2007). Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship, in *Entrepreneurship* (pp. 293–311). Springer, Berlin, Heidelberg.
- Alfandi, A. M. (2020). Is Jordan safe to visit? The impact of perceived risk perceptions on the tourist behavioural intentions. *Geo Journal of Tourism and Geosites*, 33, 1545–1550.
- Arenius, P., & Kovalainen, A. (2006). Similarities and differences across the factors associated with women's self-employment preference in the Nordic countries. *International Small Business Journal*, 24(1), 31–59.
- Armitage, C.J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471–499.
- Audretsch, D. B. (2004). Sustaining innovation and growth: Public policy support for entrepreneurship. *Industry and Innovation*, 11(3), 167–191. <https://doi.org/10.1080/1366271042000265366>
- Audretsch, D. B., & Keilbach, M. (2004). Entrepreneurship capital and economic performance. *Regional Studies*, 38(8),

- 113–124. <https://doi.org/10.1080/0034340042000280956>
- Autio, E., & Fu, K. (2015). Economic and political institutions and entry into formal and informal entrepreneurship. *Asia Pacific Journal of Management*, 32(1), 67–94. <https://doi.org/10.1007/s10490-014-9381-0>
- Baum R., J., Frese, M., Baron R. (2007). *The Psychology of Entrepreneurship*. Lawrence Erlbaum Associates, New York.
- Bayraktar, S. (2016). Do entrepreneurs create entrepreneurial cultures? When intentions do not match actions. *Bogazici Journal*.
- Belás, J., Dvorský, J., Kubálek, J., & Smrčka, L. (2018). Important factors of financial risk in the SME segment. *Journal of International Studies*.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, 88(3), 588.
- Bird, B. (1988). Implementing entrepreneurial ideas: the case for intention. *Academy of Management Review*, 13(3), 442–453.
- Bobera, D., Lekovic, B., & Berber, N. (2014). Comparative analysis of entrepreneurship barriers: findings from Serbia and Montenegro. *Engineering Economics*, 25(2), 167–176. <https://doi.org/10.5755/j01.ee.25.2.3113>
- 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, 63–63.
- Braches, B., & Elliott, C. (2017). Articulating the entrepreneurship career: A study of German women entrepreneurs. *International Small Business Journal*, 35(5), 535–557. <https://doi.org/10.1177/0266242616651921>
- Brandstätter, H. (2011). Personality aspects of entrepreneurship: a look at five meta-analyses. *Personality and Individual Differences*, 51(3), 222–230.
- Brinckmann, J., Grichnik, D., & Kapsa, D. (2010). Should entrepreneurs plan or storm the castle? A meta-analysis on contextual factors impacting business planning–performance relationship in small firms. *Journal of Business Venturing*, 25(1), 24–40.
- Brockhaus Sr, R.H. (1980). The risk-taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3), 509–520.
- Carr, J. C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: a theory of planned behaviour approach. *Journal of Business Research*, 60(10), 1090–1098.
- Choi, Y. R., & Phan, P. H. (2006). The influences of economic and technology policy on the dynamics of new firm formation. *Small Business Economics*, 26, 493–503.
- Choo, S., & Wong, M. (2009). Entrepreneurial intention: triggers and barriers to new venture creations in Singapore. *Singapore Management Review*, 28(2), 47–64.
- Chowdhury, M. S. (2007). Overcoming entrepreneurship development constraints: the case of Bangladesh. *Journal of Enterprising Communities: People and Places in the Global Economy*, 1(3), 240–251. <https://doi.org/10.1108/17506200710779549>
- Cochran, W. G. (1977). *Sampling techniques*. John Wiley & Sons.
- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behaviour: a review and avenues for further research. *Journal of Applied Social Psychology*, 28(15), 1429–1464.
- Cumming, D. J., & Fischer, E. (2012). Publicly funded business advisory services and entrepreneurial outcomes. *Research Policy*, 41(2), 467–481. <https://doi.org/10.1016/j.respol.2011.09.004>
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *The Quarterly Journal of Economics*, 117(1), 1–37. <https://doi.org/10.1162/003355302753399436>
- Dong, H., Wang, B., Zhang, P., Chen, X., & Han, J. (2022). Research on the influence mechanism of agricultural entrepreneurship: Evidence from five provinces in western China. *Frontiers in Psychology*, 13, 864226.
- Dyer, W. G., & Handler, W. (1994). Entrepreneurship and family business: exploring the connections. *Entrepreneurship Theory and Practice*, 19, 71–71.
- Engle, R. L., Schlaegel, C., & Dimitriadi, N. (2011). Institutions and entrepreneurial intent: a cross-country study. *Journal of Developmental Entrepreneurship*, 16(2), 227–250. <https://doi.org/10.1142/S1084946711001811>
- Ezeani, E. (2018). Barriers to graduate employment and entrepreneurship in Nigeria. *Journal of Entrepreneurship in Emerging Economies*, 10(3), 428–446.
- Fayolle, A. (2008). Entrepreneurship education at a crossroads: Toward a more mature teaching field. *Journal of Enterprising Culture*, 16(04), 325–337.
- Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67(5), 663–666.
- Fini, R., Grimaldi, R., & Sobrero, M. (2009). Factors fostering academics to start up new ventures: an assessment of Italian founders' incentives. *The Journal of Technology Transfer*, 34(4), 380–402.
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Gries, T., Naudé, W., 2011. Entrepreneurship and human development: A capability approach, *Journal of Public Economics*, 3(1), 216–224.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hamilton, E. (2014). Entrepreneurial narrative identity and gender: A double epistemological shift. *Journal of Small Business Management*, 52(4), 703–712.

- Henley, A. (2007). Entrepreneurial aspiration and transition into self-employment: evidence from British longitudinal data. *Entrepreneurship and Regional Development*, 19(3), 253–280.
- Herron, R. B. Robinson Jr., (1993). A Structural Model of the Effects of Entrepreneurial/Characteristics on Venture Performance. *Journal of Business Venturing*, 8 (3), 281–294.
- Hsu, D. K., Shinnar, R. S., Powell, B. C., & Coffey, B. S. (2017). Intentions to reenter venture creation: The effect of entrepreneurial experience and organizational climate. *International Small Business Journal*, 35(8), 928–948. <https://doi.org/10.1177/0266242616686646>
- Jahani, S., Abedi, H., Elahi, N., & Fallahi-Khoshknab, M. (2016). Iranian entrepreneur nurses' perceived barriers to entrepreneurship: A qualitative study. *Iranian Journal of Nursing and Midwifery Research*, 21(1), 45. DOI: 10.4103/1735-9066.174749
- Jones, S., & Warhuus, J. P. (2018). “This class is not for you” An investigation of gendered subject construction in entrepreneurship course descriptions. *Journal of Small Business and Enterprise Development*, 25(2), 182–200. <https://doi.org/10.1108/JSBED-07-2017-0220>
- Kautonen, T., Van Gelderen, M. and Fink M. (2015). Robustness of the Theory of Planned Behaviour in Predicting Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 39(3), 655–647.
- Kearney, G., & McHattie, L. S. (2014). Supporting the open innovation process in small and medium enterprises. *International Journal of Entrepreneurship and Small Business*, 23(4), 552–567.
- Khalid, R., Raza, M., Sawangchai, A., & Sontawinpongsai, C. (2022). The challenging factors affecting women's entrepreneurial activities. *Journal of Liberty and International Affairs*, 8(1), 51–66.
- Kline, R. B. (2012). Assumptions in structural equation modelling. *Handbook of structural equation modeling*, 111, 125.
- Kolvereid, L. (1996). Prediction of employment status choice intentions. *Entrepreneurship: Theory & Practice*, 21(1), 47–57.
- Kovid, R. K., Singh, N., & Kumar, A. (2023). Investigating the Impact of Women Entrepreneurs' Competencies on Firm Performance in an Emerging Economy. *Ramanujan International Journal of Business and Research*, 8(1), 1–12. <https://doi.org/10.51245/rijbr.v8i1.2023.1196>
- Kressel, H., & Lento, T. V. (2012). *Entrepreneurship in the Global Economy: Engine for Economic Growth*. Cambridge University Press.
- Krichen, K., & Chaabouni, H. (2021). The entrepreneurial intention of academic students in the time of the COVID-19 pandemic. *Journal of Small Business and Enterprise Development*.
- Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship and Regional Development*, 5(4), 315–330.
- Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432.
- Lafuente, E., & Gómez Araujo, E. (2016). The territorial economic impact of entrepreneurial youthfulness. *Strategic Change*, 25(2), 187–204.
- Lerner, J. (1999). The Government as Venture Capitalist: The Long-Run Impact of the SBIR Program. *Journal of Business*, 72(3), 285–318.
- 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. <https://doi.org/10.1111/j.1540-6520.2009.00318>.
- Littunen, H. (2000). Entrepreneurship and the entrepreneurial personality characteristics. *International Journal of Entrepreneurial Behaviour and Research*, 6(6), 295–310.
- Lortie, J., & Castogiovanni, G. (2015). The theory of planned behaviour in entrepreneurship research: what we know and future directions. *International entrepreneurship and management journal*, 11(4), 935–957.
- Mehtap, S., Caputo, A., & Pellegrini, M. M. (2017). Encouraging female entrepreneurship in Jordan: environmental factors, obstacles and challenges. *Entrepreneurship and management in an Islamic context*, 207–225.
- Mole, K. (2002). Business advisers' impact on SMEs: an agency theory approach. *International Small Business Journal*, 20(2), 139–162. <https://doi.org/10.1177%2F0266242602202002>
- Morris, M., & Lewis, P. (1995). The determinants of entrepreneurial activity. *European Journal of Marketing*, 29(7), 31–48.
- Napp, A. K. (2011). Financial risk management in SME. Financial analysis is used to identify, analyze, and monitor internal financial risk. Master Thesis. Available at: [http://pure.au.dk/portal-asb-student/files/39817962/Thesis\\_ANapp.pdf](http://pure.au.dk/portal-asb-student/files/39817962/Thesis_ANapp.pdf)
- Nsanzumuhire, S. U., Groot, W., Cabus, S. J., & Bizimana, B. (2021). Understanding the extent and nature of academia-industry interactions in Rwanda. *Technological Forecasting and Social Change*, 170, 120913.
- Organisation for Economic Co-operation and Development (OECD) (1998). *Fostering entrepreneurship*. Paris: OECD.
- Park, H. S. (2000). Relationships among attitudes and subjective norms: testing the theory of reasoned action across cultures. *Communication Studies*, 51(2), 162–175.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology*, 63, 539–569.
- Prakash, D., Jain, S., & Chauhan, K. (2015). Supportive government policies, locus of control and student's entrepreneurial intensity: a study of India. *Journal of Global Entrepreneurship Research*, 5(1), 1–15.
- Ramsay, C. R., Thomas, R. E., Croal, B. L., Grimshaw, J. M., & Eccles, M. P. (2010). Using the theory of planned behaviour as a process evaluation tool in randomized trials of knowledge translation strategies: A case study from UK primary care. *Implementation Science*, 5(1), 1–9.

- Ratten, V., & Jones, P. (2018). Transformational entrepreneurship: An overview. *Transformational entrepreneurship*, 1–17.
- Saini, R., & Dangi, H. K. (2019). Social Media Analytics: The Next Big Thing? *Ramanujan International Journal of Business and Research*, 4(1), 189–207. <https://doi.org/10.51245/rijbr.v4i1.2019.159>
- Schumpeter, J. A. (1934). *The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle*, 55. Piscataway: Transaction publishers.
- Schumpeter, J., (1911). *The theory of economic development*. Cambridge, MA: Harvard University Press. (Revised editions in 1961)
- Shahverdi, M., Ismail, K., & Qureshi, M. I. (2018). The effect of perceived barriers on social entrepreneurship intention in Malaysian universities: The moderating role of education. *Management Science Letters*, 8(5), 341–352.
- Shapiro, A. (1975). The displaced, uncomfortable entrepreneur. *Psychology Today*, 9(6), 83–88.
- Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise the entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of Business Venturing*, 22(4), 566–591.
- Tang, J. (2008). Environmental munificence for entrepreneurs: entrepreneurial alertness and commitment. *International Journal of Entrepreneurial Behavior & Research*, 14(3), 128–151.
- Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669–694.