



Does entrepreneurial motivation influence entrepreneurial intention? Exploring the moderating role of perceived supportive institutional environment on Indian university students

Avi Karan¹ · Mamta Singh²  · Nripendra P. Rana³

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Abstract

Policymakers, researchers, and other stakeholders continue to be interested in entrepreneurship because of its enormous potential to address some of the world's most serious problems. Entrepreneurship has emerged as a popular career choice among youth from emerging economies. Thus, understanding the relationship between motivations to start a business and their entrepreneurial intention is critical. Additionally, understanding the influence of a supportive institutional environment in this context is timely and relevant. The study used Smart PLS for analysing data collected from 311 online surveys from students studying at various academic institutions in India. Results validate the model with high predictive value and establish a positive relationship between entrepreneurial motivation and entrepreneurial intention. The current study significantly advances our knowledge of the process of entrepreneurial intention formation. Additionally, for developing economies like India, the research on the supportive institutional environment has significant policy ramifications.

Keywords Entrepreneurship · Motivation · Institutional environment · University · Students

✉ Mamta Singh
mantakumar7@gmail.com

Avi Karan
avikaran18@gmail.com

Nripendra P. Rana
nrananp@gmail.com

¹ Department of Marketing, Chandragupt Institute of Management Patna, Bihar, India

² Department of OB & HR, Chandragupt Institute of Management Patna, Bihar, India

³ Department of Marketing, College of Business and Economics, Qatar University, Doha, Qatar

Introduction

Entrepreneurship has made substantial contributions to the creation of jobs, increased productivity, and economic growth (Al-Jubari, 2019). As a result, it continues to garner the interests of policymakers, researchers, and various stakeholders (Du & O'Connor, 2018). Scholars have linked entrepreneurship with sustainable development through employment, innovation, competitiveness, and welfare (Abdesselam et al., 2017; Zoltán et al., 2018). On the contrary, there is a growing concern about the negative impacts of business activities. In recent times, the increasing pollution, global warming, and challenging labour conditions arising due to irresponsible business activities have forced governments, international organisations, and academic institutions to critically view the functioning of enterprises (Sapena et al., 2018; Turok et al., 2017). Both these opposing outcomes of entrepreneurship provide substantially relevant reasons for critical evaluation of the area.

Recently, entrepreneurship has become a popular career choice among students, and examining student entrepreneurship has become popular among scholars, even universities are increasingly supportive of such activities (Meoli et al., 2020). As intentions are the best predictor of future entrepreneurial behaviour (Bird, 1988), and 65 percent of the Indian population is below 35 years of age (Jena, 2020), the present study focuses on Indian university students' entrepreneurial intentions (EI) is timely and worthwhile. Also, in a recent survey, Indian adults expressed the level of opportunities to be the highest in the country for entrepreneurship among BRICS economies (Global Entrepreneurship Monitor India Report, 2019). As students are required to make decisions regarding their future career choices, they can play a critical role in successfully solving future challenges. For example, according to a report by the Ministry of Skill Development and Entrepreneurship India (2015), an additional 109.73 million skilled manpower will be required by the year 2022. Thus, examining EI among the largest future workforce of a rapidly developing economy like India is significant both for policy development and its role in international business.

According to recent studies in cognitive psychology, the entrepreneurial process is highly complex, and understanding the influence of entrepreneurial motivation (EM) on EI is relevant (Hassan et al., 2021a, b). Additionally, developing economies have weaker institutional foundations, lack clarity on the choice of institutions, and require a higher level of entrepreneurship (Urbano et al., 2020). Urbano et al. (2020) further contend that the literature on institutional environments, entrepreneurship, and economic growth is fragmented. Thus, the present study has twofold theoretical contributions. Firstly, examining the influence of entrepreneurial motivation (EM) on entrepreneurial intention (EI) establishes the link and contributes to the existing literature on the entrepreneurial intention formation process. Secondly, the context-specific result based on our study of a moderating variable- perception of the supportive institutional environment (PSIE) on the EM-EI link has important policy implications.

The remainder of this study is organised as follows: in section two we reviewed the existing literature on entrepreneurial intention, entrepreneurial motivation, and perception of a supportive institutional environment, hypotheses development and

conceptual model. In the next section, we discuss the research methodology that includes the data collection methods, sample characteristics, and explanations for the methods employed. The next section is on the [results](#) and [discussion](#) followed by future research directions, implications, and limitations of the study.

Literature review and hypotheses development

Theoretical background

Intentions help entrepreneurs to navigate in developing a new venture and guide them in setting goals, communicating effectively, organising their work, and committing to various kinds of related demands as an action template (Bird, 1988). Entrepreneurial intention (EI) is “a state of mind directing a person’s attention (and therefore experience and action) toward a specific object (goal) or a path to achieve something (means)” (Bird, 1988, p.443). Gatewood et al. (2002) contend that though being a troubling thought, a possible reason for linking the decision-making process (i.e. choosing to start a venture) with psychological characteristics in the area of entrepreneurship is similar to the focus on leaders’ characteristics found in leadership literature. The theoretical foundations of entrepreneurial intention have been categorised as an *expectancy model* in which individual attitudes and social norms give rise to a behavioural intention; an *attribution model* that emphasises locus of control in attributing outcomes to one’s effort and behaviour and intention not attributed to others’ behaviour (Rotter, 1966) and a *linguistic model* that emphasises the role of language in communicating intentions and how intentions are influenced by language (Bird & Jelinek, 1989).

Scholars in past have examined entrepreneurial intentions from numerous lenses. EI-based studies have explored the theory of planned behaviour (TPB) and its determinants (Al-Jubari 2019; Tsai et al., 2016) extensively. TPB is one of the most popular theories applied for EI based studies (Entrialgo & Iglesias, 2016; Liñán & Chen, 2009), and forms the basis for numerous studies. According to Ajzen (1991), intentions are the best predictor of voluntary behaviour, and are shaped by attitudes, subjective norm, and perceived behavioural control. Early, intention-based studies examined personality factors (self-confidence, ability to take risks, need for achievement, and locus of control), cognition, perception, and intention (Turker & Selcuk, 2009). According to Liao et al (2022) personal attitudes is critical for EI. Further, entrepreneurial knowledge (EK) contributes to self-efficacy important for developing high levels of self-confidence while starting a business. Studies on family members’ prior association with entrepreneurship (Bosma et al., 2012; Laspita et al., 2012); personality traits like propensity to take risks (Zhao et al., 2010); optimism (Giacomin et al., 2016); innovativeness, self-confidence, and competitiveness (Rauch et al., 2007); entrepreneurial activity or self-employment (Solesvik et al., 2013); prior work experience (Fayolle & Gailly, 2015; Lans et al., 2010) and gender differences were found to have a significant *influence on EI*.

Entrepreneurial motivation (EM) and entrepreneurial intention (EI)

Locke and Baum (2007, p.93) define entrepreneurial motivation as “an inner drive toward entrepreneurship goals. It energises, directs, and sustains new venture creation and growth”. Fotoki (2010) posited that a person’s desire to become an entrepreneur is influenced by a variety of personal characteristics. These can be classified as (1) demographic variables or (2) attitudes, values, or psychological elements in general. Scholars in past have examined motivation from various considerations. General and task-specific EM were classified by Shane et al. (2003). Birch (2009) further divided the motives to start a business into two, structural (plan) and dynamic (motivational). Carsrud et al. (1989) focused on the motivation-behavior relationship in business performance in the past. Carsrud and Brannback (2011) claimed that motivation plays a role in the intention-action relationship. According to Carsrud and Brannback, (2011), EM varies based on countries. Also, motivations result from cognition, and natural and social parameters (Alam et al., 2019). However, the motivation being multidimensional is complex to understand and it depends upon internal individual factors and contextual factors (Lang & Liu, 2019).

In previous studies, the drive for achievement, autonomy, better work, locus of control, goal setting, independence, and egoistic passion was revealed as motives for entrepreneurship (Fayolle et al., 2006; Krueger & Brazeal, 1994; Lang & Liu, 2019; Minarcine & Shaw, 2016; Shane et al., 2003; Stephan et al., 2015). Barba-Sánchez and Atienza-Sahuquillo (2012) contend that entrepreneurs’ need for independence gives them autonomy to choose their career, make decisions, and act in alignment with their values, beliefs, and ideas.

Autonomy refers to the need to perceive that entrepreneurs are the source of their actions. According to Sinha (2008) competency makes individuals feel confident to undertake a task at hand and accomplish them responsibly. Additionally, entrepreneurs are often motivated to solve a problem not addressed earlier, many times, the reason to start an enterprise is deeply rooted in an entrepreneur’s need for relatedness. Schleppehorst et al. (2020, pg 1263) defined intent as an “aim that is influenced by given motivational factors, which in turn influence actions or behaviour”. Several studies in past confirmed motivation as a critical factor for EI (Barba-Sánchez & Atienza-Sahuquillo, 2017; Lang & Liu, 2019; Nabi & Linan 2013; Solesvik et al., 2013). Based on these considerations, we propose the following hypothesis:

H1: Entrepreneurial motivation positively influences entrepreneurial intention among students.

Perceived supportive institutional environment (PSIE)

Entrepreneurs do not function in isolation and are influenced by contextual factors, education, opportunities, and support. They draw upon resources from their close relationship with their external environment to initiate a business (Trivedi, 2017). Past scholars also argue governmental policies, local context (e.g., logistical infrastructure, finance,

investors, and other externalities), and, university support mechanisms influence student's entrepreneurial activities (Foo et al., 2016; Goel et al., 2015; Miranda et al., 2017; Moog et al., 2015). The focus on contextual factors is rooted in the resource-based approach. Apart from the influence of individual factors on entrepreneurial intention, situational factors (cultural, social, economic, political, demographical, and technological) are believed to influence EI. People either get pushed or pulled from their past or present situational factors (Hisrich, 1990). In past, scholars examined the influence of contextual factor like attitude towards entrepreneurship (Kirchoff, 1991); cultural and institutional frameworks (Wennekers & Thurik, 1999); specific personality characteristics, motivational factors, and the nature of education (Ang & Hong, 2000). However Ang and Hong (2000) did not consider the contextual factors on the entrepreneurial spirit of university students. Luthje and Franke (2003) studied the influence of both personality factors and contextual factors (perceived barriers and perceived support) to show the impact of attitude towards self-employment. Also, Turker et al. (2005) found statistical support for both internal factors (motivation and self-confidence) and one external factor, the perceived level of support. Scholars contend that interaction of the external environment with the resources results in venture creation (Boyd, 1990; Pfeffer & Salancik, 1978). Since the entrepreneurial intention is related to the economic context (Nabi & Linan, 2013), resources play a critical role in the running of a venture (Bruno & Tyebjee, 1982). However, students lack skills, resources, and information which leads to failure to understand the market needs, or generate sufficient financial resources during their entrepreneurial journeys (Learned, 1992; Trivedi, 2017; Trivedi et al., 2010). Li and Islam (2021) discussed that though past scholars examined the role of university support in enhancing students' EI but did not include perceived educational support and perceived institutional support with entrepreneurial intention. In their study, they tested the influence of entrepreneurial environment, perceived entrepreneurial education, and perceived entrepreneurial policy with entrepreneurial intention (EI) in a Chinese context for vocational college students. Also, a recent comparative study on institutional environment and entrepreneurial activity reported significant difference between developing and developed nations based on the nature (informal and formal) of the dominant institutions (de Mello et al., 2022). Thus, a study on the role of perceived supportive institutional environment (PSIE) on the EM-EI link in a developing nation like India is needed. We believe that the PSIE will affect the EI by moderating the EM-EI relationship. Thus, we propose the following hypothesis (Fig. 1):

H2: *Perceived supportive institutional environment moderates the relationship between entrepreneurial motivation and entrepreneurial intention positively.*

Methodology

Data collection procedure, design, and measures

The study used an online questionnaire based on the adopted measures and additional items based on demographic details. A Google survey platform for testing the proposed hypotheses was used. Online links for questionnaires were shared

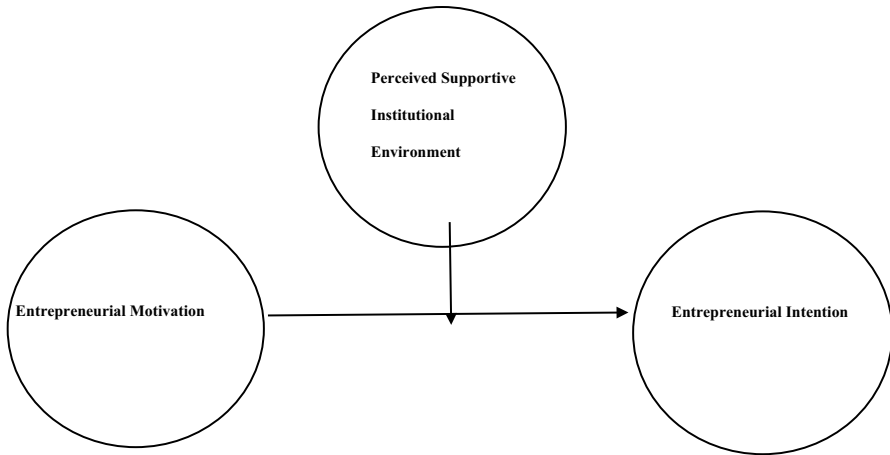


Fig. 1 The Conceptual Model. Note: *EM* Entrepreneurial motivation, *PSIE* Perceived supportive institutional environment, *EI* entrepreneurial intention

with an invitation message on the authors' social media pages for the prospective respondents to participate in the study. Further, participants were invited to share the link among their social networks using their social media profiles. This study employed snowballing sampling. The choice of using social media is appropriate as approximately 448 million Indians are active social media users (Statista, 2022). Also, 84% of social media users are between the ages of 18–39 years (Auxier & Anderson, 2021).

Data were collected between April 2021 and June 2021. The constructs were measured using well-established scales and were adopted from existing literature on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The selected measures for motivation (16 items) were adopted from (Barba-Sánchez & Atienza-Sahuquillo, 2012); entrepreneurial intention, a single-item scale (Block et al., 2013). Perceived supportive institutional environment adopted from 7 items scale (Miranda et al., 2017) respectively.

Results

Sample profile

A total of 311 completed responses were recorded with respondents having ages between 17–25 years (76%). Fifty four percent of the respondents were female; 46% (male). Also, 54% of respondents were pursuing their graduate degree; 35% were undergraduate; 11% were intermediate. The families mostly from services (46%) background were from rural settings (74%) (Table 1).

Table 1 Descriptive Statistics

Descriptive Statistics	
	Percentage
Age (Yrs)	
17–25	76
26–35	24
Gender	
Male	46
Female	54%
Education Status (current)	
Intermediate	11
Undergraduate	35
Graduate	54
Stream (education)	
Arts	16
Science/ Technology	20
Commerce/ Management	64
Residence	
Urban	26
Rural	74
Family Background	
Farming	15
Entrepreneurship	14
Service	46
Others	25

Empirical analysis

The present analysis was done using the partial least squares (PLS) 3.0 (Hair et al., 2016). Our choice of PLS is based on its predictive analysis. It is recommended when the statistical analysis is concerned with testing a theoretical framework from a prediction perspective (Hair et al., 2017) in our case, there is insufficient validation of theory regarding testing the relationship between entrepreneurial motivation and entrepreneurial intention link directly. We estimated the model using the PLS 3.0 package, and further significance of parameters was estimated through the bootstrap resampling method, selecting 500 sub-samples of size equal to the original sample (Hair et al., 2011). To avoid any collinearity issues, we tested if any of the constructs had a valance inflation factor (VIF) greater than 3.0. Ideally, its value should be close to 3 and lower (Hair et al., 2017). The results indicate VIF of all constructs between the values of 1.00 to 2.60 confirming no issue of collinearity.

Assessment of reflective constructs

Smart PLS 3.0 was used to test the measurement model for reliability and validity. Except for five items, the loadings for all remaining items exceeded the reference value (see Table 2 for the final list). The remaining items passed the lower

allowable value of 0.40 after two items related to PSIE and three items related to an EM were removed. If eliminating items between 0.4 and 0.7 boosts the composite reliability (CR) and AVE above the threshold, they should be considered for removal, according to Hair et al (2011). Cronbach's alpha is considered to have a lower limit of 0.6. For each construct, we calculated the Cronbach's alpha value (see Table 2).

All the constructs' Cronbach's alphas are above 0.770, indicating that there are no reliability concerns, and composite reliability (CR) is over 0.831, signifying that the CR of all of the constructs in the measurement model is on an accurate scale (Hair et al., 2017). The average variance extracted (AVE) values were all more than 0.5, indicating that the model was convergently valid (Hair et al., 2016). The greatest value of the Hetrotrait-Monotrait correlations ratio (HTMT) is 0.72 (see Table 3), with a value below 0.85 indicating discriminant validity (Henseler et al., 2015).

The study reported the construct's coefficients of determination ($R^2=0.494$) explaining the model's explanatory power (Hair et al., 2017; Shmueli & Koppius, 2011). Also, the predictive capacity (Q^2) was found to be high at 0.49 ($Q^2>0$) suggesting high predictive capacity. Small differences between the predicted and the original values translate into a higher Q^2 value, thereby indicating a higher

Table 2 Results for Reflective Constructs

Constructs	Items	Loadings	CA	CR	AVE
Perceived Supportive Institutional Environment (PSIE; 6 items)	PSIE 3	0.572	0.770	0.831	0.509
	PSIE 4	0.735			
	PSIE 5	0.866			
	PSIE 6	0.852			
	Entrepreneurial Intention (EI; 1 item)	EI 1			
Entrepreneurial Motivation (EM; 16 items)	EM1	0.694	0.918	0.930	0.507
	EM2	0.797			
	EM3	0.784			
	EM4	0.546			
	EM5	0.713			
	EM6	0.670			
	EM7	0.614			
	EM8	0.687			
	EM10	0.681			
	EM11	0.718			
	EM12	0.782			
	EM15	0.773			
EM16	0.749				

The bold entries represent Cronbach's Alpha and Composite Reliability > 0.7; Average Variance Extracted > 0.5

CA Cronbach's Alpha, CR Composite Reliability, AVE Average Variance Extracted

Table 3 Discriminant Validity

CONSTRUCTS	PSIE	EI	EM
PSIE	0.713		
EI	0.229	1.00	
ME	0.216	0.72	0.712
Moderating Effect	0.082	0.08	0.116

The bold entries represent Heterotrait-Monotrait correlation ratio (HTMT) < 0.85

PSIE Perceived Supportive Institutional Environment, *EI* Entrepreneurial Intention, *EM* Entrepreneurial Motivation, *ME* Moderating Effect

predictive accuracy (Hair et al., 2017). The SRMR value of the structural model was found $0.071 < 0.08$, well within the acceptable value suggesting a good fit for the model. The *t*-values and significance of the causal relationships were determined by the bootstrap resampling procedure with 500 sub-samples (Hair et al., 2017). Based on the *p*-value < 0.5 H1 was accepted, while the H2 was rejected (see Table 4).

Discussion

Developing economies often require a higher level of entrepreneurship but studies exploring institutional environments, entrepreneurship, and economic development is fragmented (Urbano et al., 2020). Further, institutional environment and entrepreneurial activity differ between developing and developed nations based on the nature (informal and formal) of the dominant institutions (de Mello et al., 2022). Therefore, the present study in a novel context, adds to our understanding on the relationship between EM and EI, and contributes to the existing literature on entrepreneurial intention.

Korsgaard et al. (2015) posit that entrepreneurial intentions are not based solely on social settings but the spatial settings as well. Entrepreneurs tend to capitalise on the local networks, and local and/or regional organisations' support (e.g., incubation)

Table 4 Hypothesis Testing^a

Hypothesis	Original Sample (O)	S. Mean	S. D	t-value	<i>p</i>	LL	UL	Decisions
PSIE → EI	0.086	0.094	0.037	2.333	0.020*	0.027	0.169	Supported
MOT → EI	0.682	0.680	0.042	21.583	0.000*	0.612	0.740	Supported
Moderating → Effect EI	-0.030	-0.034	0.045	0.674	0.501	0.119	0.055	Not supported

PSIE Perceived Supportive Institutional Environment, *EI* Entrepreneurial Intention, *EM* Entrepreneurial Motivation, *ME* Moderating Effect, *O* Original sample, *S. Mean* Standard Mean, *S.D* Standard deviation, *T* statistic *t* values, *LL* Lower level, *UL* Upper level, *Decisions* hypothesis being supported/ unsupported

**p* < 0.05

^aBootstrap resampling procedure with 500 sub-samples

to operate in regional markets (Sternberg, 2009). Many operate in rural settings and make use of their social ties (McKeever et al., 2015). Further to progress through the start-up process, opportunity recognition is enough. Additionally, for students, courses or curricular activities aimed at developing entrepreneurship should enhance their access to entrepreneurial social networks (Ruiz-Palomino & Martínez-Cañas, 2021). In recent times, we have witnessed an emphasis of developing nations on creating a culture of entrepreneurship. For example, programs like start-up India develops a supportive environment for entrepreneurship and can engage students, faculty, and staff in innovation and entrepreneurship-related activities from higher education institutions in meeting future challenges (Ali et al., 2021). Though, the present study draws on the positive influence of EM on EI ($R^2=0.49$) but it could not establish any significant moderating relationship between PSIE on EM-EI link. We posit intention–behaviour gap for reporting this discrepancy. According to the intention–behaviour gap, merely having intention does not mean that the behaviour will take place. In previous meta-analytical analyses of the intention–behavior gap literature, medium- to large-sized intentions result in only moderate to medium-sized behavioural modifications ($d+=0.36$) (Webb & Sheeran, 2006). Also, meta-analytical investigations on specific behaviours such as physical activities, health screening, illicit drug usage, video game play, blood donation, and smoking cigarettes found mean intention–behaviour correlation between 0.44 to 0.62. (Ajzen, 2012; Armitage & Conner, 2001). In this context, Sheeran (2002) identified “*inclined abstainers*” as mainly responsible for this gap. The inclined abstainers are individuals with an inclination to start, for example in our case to start a business but not initiate the expected behaviour due to certain individual and/ or contextual factors.

Entrepreneurship is a complicated behaviour in which goals influence numerous aspects of conduct. Entrepreneurial behaviour entails a series of acts that are uncertain, and not under volitional control. Also, there is a considerable time lag between actions and consequences. As a result, intention is not a perfect predictor of entrepreneurial behaviour (Meoli et al., 2020).

The study has important implications for policymakers and managers towards establishing a vibrant and wide entrepreneurial ecosystem so that the youth choose entrepreneurship as a career. Although PSIE have greater relevance for individuals who have advanced on their plans to start a business yet understanding its relationship with EI is critical. Since literature on the influence of PSIE and EI is sparse, the present study is important to create supportive ecosystem to be accessed by individuals at different stages of their entrepreneurial journey. It also establishes insight for adequate policy development and implementation. Further, scholars argue that activities related to venture creation is confined to certain geographical areas due to regional variations in ideas, knowledge, agglomeration effects, and entrepreneurship-related values (Stuetzer et al., 2016). Thus, managers and policymakers can work towards developing training opportunities that integrate entrepreneurial self-efficacy, enhance confidence along with EI among students. Also, programs on developing entrepreneurial intention among students, along with having knowledge of the business environment, government policies, and funding opportunities can influence their overall entrepreneurial behaviour.

Limitations and future research directions

According to a recent report, 50% of adult Indians fear failure in the context of starting a business (Global Entrepreneurship Monitor India Report, 2019). Thus, fear of failure is one of the barriers, and future studies examining the relationship between fear of failure and EI can be a fruitful research avenue. Also, based on the relationship of PSIE on the EM-EM link, the authors contend that studying the moderating relationship of PSIE on the entrepreneurial intention- behaviour relationship could be another interesting area of research. Further, longitudinal studies based on EI-behaviour and EM could open new vistas for understanding the role of motivation. Also, identifying the relationship between factors of motivation and types of entrepreneurial behaviours could be another area of investigation. Studies exploring how PSIE functions on the psychological dimensions of individuals is a fruitful research avenue. As PSIE could influence this relationship based on the individual characteristics of students., thus, future research towards understanding how individual characteristics relate to PSIE, and how does this relationship influences EI_ behaviour relationship is critical.

With the increasing focus on entrepreneurship, expectations from institutions to influence the EI cannot be ignored. Thus, it is imperative to understand how policies in the future should be framed and implemented. The study was based in an Indian context with respondents from India only. Also, the cross-sectional nature of study limits the applicability of the results. Thus, results with respondents from different geographies and longitudinal data would provide greater insights. Though the study has implications for developing countries, future research comparing the EI and PSIE in developing and developed contexts can provide valuable insights for policy development in entrepreneurship.

Conclusions

We witness how entrepreneurship continues to garner the interests of various stakeholders through its contributions in creation of jobs, increased productivity, and economic growth (Al-Jubari, 2019). Also, increased emphasis on entrepreneurship among policymakers, have led to development of a conducive environment thereby encouraging more students to consider entrepreneurship as a career choice. Thus, an ecosystem with supportive institutional environment, required infrastructure, and skilled human capital is necessary for creating a culture of entrepreneurship.

Motivation to start a business are based on several factors and influence an individuals' future behavior. These factors either encourage, or act as barriers and influence an individual's motivation. These could be based on the autonomy that entrepreneurship offers, or could be based on opportunities to develop individual competence. Often, enterprises that are nascent require entrepreneurs to multitask activities. These activities compel individuals to learn new skills, and consequently improve them with practice. Along with new opportunities to learn, entrepreneurship as a career

choice influences individuals' ability to fulfil their relational needs. Also, different factors can motivate different individuals' during their entrepreneurial journey. These can be categorized based on the stages of entrepreneurship. Although, our study did not find PSIE's influence on EM-EI relationship. However, future research on exploring the relevance of PSIE in influencing entrepreneurial behaviour at the later stages could be worthwhile.

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Data availability The data that support the findings of this study are available on request from the corresponding author.

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