


Passionate, motivated and creative yet not starting up: A moderated-moderation approach with entrepreneurship education and fear of failure as moderators

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Prabha Thoudam

Delhi Institute of Professional Studies and Research, India

Imran Anwar

Chandigarh University, India

Ermal Bino

University of Buraimi, Oman

Maebeama Thoudam

Osmania University, India

Ahanthem Malemnganbi Chanu

Manipur University, India

Imran Saleem

University of Buraimi, Oman

Abstract

This research attempts to measure the direct and moderated influence of entrepreneurial passion (EP), motivation (EM) and creativity (EC) on intention (EI) while being moderated by entrepreneurship education (EE). This study also instrumentalizes the conditional interaction effect of fear of failure on the moderated paths. A data sample of 1090 business students from five Indian universities was subjected to screening and cleaning before establishing the measurement model and testing the hypotheses using structural equation modelling and Process Macro. EP, EM and EC were found to affect EI directly, while EE also moderated these links. Fear of failure was also found to be conditioning the moderated paths such that the positive moderation effect of EE on direct paths between EP, EM, EC and EI was stronger when students perceived no fear of failure. The study advances the existing literature on the moderating role of entrepreneurship education by recognizing the conditional interaction effect (moderated-moderation) of fear of failure on the moderating effects of entrepreneurship education. The authors also provide valuable suggestions for practice.

Keywords

Entrepreneurial passion, entrepreneurial creativity, entrepreneurial intention, entrepreneurship education, fear of failure, moderated-moderation

Across academia, research related to entrepreneurial intention has gained significant momentum in the recent past and it has been found to be the most important determinant of entrepreneurial action and behavior among individuals (Anwar et al., 2021c; Hassan et al., 2021b; Peng et al., 2013; Shahab et al., 2019). Given the facts that entrepreneurship

Corresponding author:

Imran Anwar, Chandigarh University, University Centre for Research and Development, Mohali, Punjab 140413, India.
Email: anwarimran1@gmail.com

has drawn the attention of young people in recent times and governments have paid due attention to the development of entrepreneurship as a career option, an abundance of research has been conducted over the last decade to unbox the phenomenon of entrepreneurial intention and its link with actual behavior (Agarwal et al., 2020; Edelman et al., 2016). Numerous contextual, demographic and cognitive factors have been found to be pivotal in driving entrepreneurial intention (Arafat and Saleem, 2017; Anwar and Saleem, 2018; Bazan et al., 2020; Hassan et al., 2020; Schlaegel and Koenig, 2014). Researchers have attempted to understand the concept of entrepreneurship using different approaches and instrumentalizing different determining factors in the formation of entrepreneurial intention (Fretschner and Weber, 2013; Anwar and Saleem, 2019a; Hassan et al., 2021a; Criaco et al., 2017). In the process, scholars have also devoted a considerable amount of attention to nascent entrepreneurship, focusing on university students as aspiring or budding entrepreneurs (Arafat et al., 2018; Hassan et al., 2021a; Martins et al., 2018; Wagner and Sternberg, 2004).

Different theories and models have been applied to predict the behavioral intention of individuals taking into account various psychological, demographic, contextual and cognitive factors and the phenomenon of entrepreneurial intention has not been completely explained (Anwar and Saleem, 2019b; Chang et al., 2014; Cacciotti and Hayton 2014; Hassan et al., 2020; Liñán and Fayolle, 2015). Among these, the Theory of Planned Behavior has been the most widely used theory, given its ability to map behavioral intention through cognition (Anwar et al., 2020, 2021a; Roy et al., 2017; Krueger, 2009). However, no agreement has been reached with regard to a theory or model that can predict entrepreneurial intention completely. In order to gauge the complexity of the entrepreneurial process and to better comprehend the cognitive phenomenon of the process, some researchers have contributed to the advancement and modification of intention models (Fayolle et al., 2014; Fayolle and Liñán, 2014; Barba-Sánchez and Atienza-Sahuquillo, 2018). Previous studies have also pointed out gaps in the use of methodology and constructs to predict intention (Anwar et al., 2021c; Barba-Sánchez and Atienza-Sahuquillo, 2018; Fayolle and Liñán, 2014; Sahoo and Panda, 2019; Liñán and Fayolle, 2015) and have suggested the adoption of greater methodological rigor in building conditional models to predict entrepreneurial intention.

Solesvik (2013) notes that personal-level factors such as motivation and passion may play a crucial role in forming an individual's entrepreneurial intention. Other researchers have also advised considering the personal factors of passion, motivation and creativity in an entrepreneurial intention model (Carsrud and Brännback, 2011; Cardon et al., 2017; Cacciotti et al., 2016). Nevertheless, literature on the

direct roles of personal factors – entrepreneurial passion, motivation and creativity – is still scant and, as a result, a knowledge gap corresponding to the direct role of these variables is discernible (Fayolle, 2008; Liñán et al., 2011; Ng and Jenkins, 2018). Therefore, this study sets up its first objective and cognizes the direct role of entrepreneurial passion, motivation and creativity in predicting entrepreneurial intention.

Studies have empirically confirmed that students who have received entrepreneurship education are strong in terms of personal factors such as entrepreneurial attitude, self-efficacy, passion, motivation creativity, etc., and are consequently stronger in entrepreneurial intention (Ahmed et al., 2017; Anwar et al., 2021b; Fayolle and Gailly, 2015; Hassan et al., 2021a). Most studies have used entrepreneurship education either as a direct or mediating variable to predict entrepreneurial intention (Anwar et al., 2021b, 2021c; Hassan et al., 2021a; Roy et al., 2017) and very few have checked the moderating role of education (Anwar et al., 2020; Hassan et al., 2020). Fayolle (2013) and Fayolle and Gailly (2015) are also of the opinion that the causal link between entrepreneurship education, attitudinal factors, perception variables and intention has not received as much attention as it should and thus needs more exploration. Moreover, Fayolle and Liñán (2014) also suggest adopting greater methodological rigor (adoption of conditional models) to better predict the causal interactive role of entrepreneurship education on the interplay between entrepreneurial intention and its determinants. Therefore, the second objective of this study is to conceptualize the moderating role of entrepreneurship education.

Fear of failure is likely to impact an individual's appraisal of the risks involved in setting up a new venture, hampering entrepreneurial initiative. Given its ability to reduce the likelihood of starting up a new venture, it is more likely to affect the cognition of nascent or budding entrepreneurs and weaken their entrepreneurial intention (Ng and Jenkins, 2018; Laguna, 2013; Wennberg et al., 2013). The literature has used fear of failure as a direct psychological predictor of entrepreneurial intention which hinders individuals from taking up entrepreneurial initiatives (Arafat and Saleem, 2017; Cacciotti et al., 2016; Li, 2011; Martins et al., 2018; Peng et al., 2013). However, research on the fear of failure has gained little momentum in the recent past, with some studies examining its mediating and moderating role in the interplay between personal and cognitive factors, entrepreneurial intention and behavior (Camelo-Ordaz et al., 2016; Kong et al., 2020; Li, 2011; Ng and Jenkins, 2018; Tsai et al., 2016). Fear of failure not only triggers risk aversion among nascent entrepreneurs and impedes them from undertaking an entrepreneurial activity; it also enfeebles the role of entrepreneurship education and training in developing entrepreneurial competencies by inculcating the fear and threat of business

failure (Hunter et al., 2021; Kollmann et al., 2017; Morgan and Sisak, 2016; Ng and Jenkins, 2018).

Turning to the Indian setting, according to the GEM Global Report 2020–21 (Bosma et al., 2020), the country has performed better in terms of providing post-school entrepreneurship education (ranked 14th among 43 nations) and government entrepreneurship support and training programs (ranked 11th among 43 nations). However, for Total Early-Stage Entrepreneurial Activity (TEA rate), India was ranked 39th among 43 nations with a TEA rate of 5.3%, corresponding to the highest fear of failure rate at 56.80% (ranking first among 43 nations) (Bosma et al., 2020). Building on the above theoretical arguments and the statistics from the GEM report, it seems plausible that fear of failure may be incapacitating the effect of entrepreneurship education and that individuals' sense of risk aversion hampers the interplay between entrepreneurship education and intention. Thus, we set forth our third objective and cognize that fear of failure conditions the moderating effect of entrepreneurship education. In line with its objectives the study poses the following research questions:

- *RQ1*: Do entrepreneurial passion, motivation and creativity significantly enhance entrepreneurial intention?
- *RQ2*: Does entrepreneurship education act as a moderator on the relationships between entrepreneurial passion, motivation, creativity and intention?
- *RQ3*: Does fear of failure condition the moderating effect of entrepreneurship education on the relationships between entrepreneurial passion, motivation, creativity and intention? (see Figure 1)

Theory and hypotheses development

Entrepreneurial passion and intention link

In the words of Huyghe et al. (2016), an individual's passion for entrepreneurship is linked to good thoughts and attitudes toward actions that are important to their self-image. Passion is seen as the beating heart of entrepreneurialism and has the potential to influence entrepreneurial behavior including the formation of new businesses (Santos and Cardon, 2019). The overwhelming desire to put all of one's energy into completing the work one enjoys is what researchers refer to as "passion" (Vallerand et al., 2003). Entrepreneurial passion has been categorized by scholars into three types: firstly, "passion for entrepreneurship" in recognizing, creating and exploring new business prospects; secondly, "passion for establishing" indicates the entrepreneur's passion for activities related to developing a business

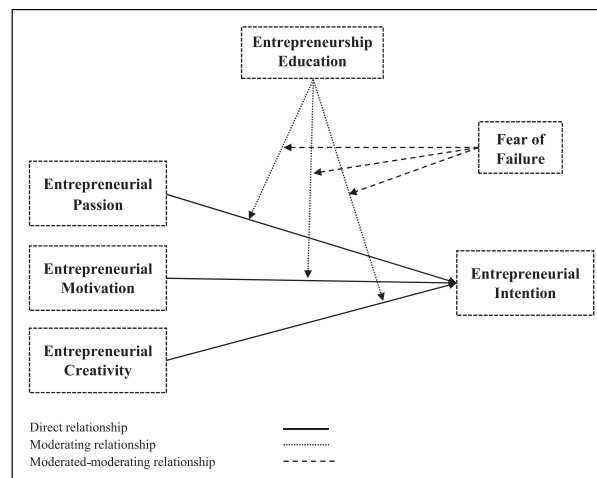


Figure 1. Conceptual model.

venture; and there is the passion to make sure of the steady progress and prosperity of a developed venture (Cardon and Kirk, 2015; Montiel Campos, 2017). These types of entrepreneurial passion relate to identity impact and the establishment of entrepreneurialism. Even when the environment was unknown and resources were limited, several researchers found that entrepreneurial passion generated good emotions among people and boosted their motivation and behavioral intention toward entrepreneurship (Biraglia and Kadile, 2017; Türk et al., 2020).

According to Cardon et al. (2017), entrepreneurial passion spurs individuals to look for new possibilities and formulate new company plans. Entrepreneurial passion is a critical aspect in obtaining motivation and success as well as a reliable indicator of future entrepreneurial intention (Hubner et al., 2019). Entrepreneurial passion expedites the mobilization of the needed vibrancy among nascent entrepreneurs to counter unpredicted circumstances pertaining to the management of physical, social and financial resources (Cardon et al., 2009; Thorgen and Wincent, 2015). Put differently, passion might result in a greater concentration on the actual enterprise creation without necessarily addressing any eventualities or hurdles.

Entrepreneurial passion has been found to substantially affect entrepreneurial intentions (Karimi, 2020; Schenkel et al., 2019). A study was conducted by Karimi (2020) in Iran with a sample of 310 university students assessing the influence of entrepreneurial passion and the underlying factors of the Theory of Planned Behavior on intention ... The study found that entrepreneurial passion significantly enhanced entrepreneurial intention. In a similar study, Montiel Campos (2017) examined the role of entrepreneurial passion on intention via the mediation of entrepreneurial alertness and found that entrepreneurial passion positively affected entrepreneurial alertness and intention.

Thus, it can be posited that a person with high entrepreneurial passion is more prone to starting a new venture. The following hypothesis is therefore proposed:

- *H1*: Entrepreneurial passion positively influences entrepreneurial intention.

Entrepreneurial motivation and intention link

Motivation has been described as the psychological aim of or reason for action (Anwar et al., 2021c; Hassan et al., 2021b). Carsrud and Brännback (2011) divided entrepreneurial motivation theories into two categories: the “incentive theory” and the “drive theory”. The drive theory emphasizes an individual’s inner desire (e.g., independence or urge for accomplishment) that helps to decrease stress by pushing them to engage in entrepreneurial activity (Fayolle et al., 2014; Solesvik, 2013). On the other hand, the incentive theory posits that extrinsic rewards (e.g., wealth or financial prosperity) act as the motivational tool for an individual to engage in entrepreneurialism (Fayolle et al., 2014). Further, these motivations were also divided by Shane et al. (2003) into two categories – general and task-specific – corresponding to an individual’s inner traits and attributes to perform specific tasks.

When the drive theory of motivation is applied to entrepreneurship, it is plausible to argue that an individual’s internal strain motivates them to start a new business (Fayolle et al., 2014). This is the consequence of motivation influencing an individual’s psychology such they wish to engage in a business venture (Solesvik, 2013). The initiative affected by a set of impulses has been regarded as the intention (Schlepphorst et al., 2020). Individual motives therefore serve as precursors to the emergence of entrepreneurial intention (Solesvik, 2013; Barba-Sánchez and Atienza-Sahuquillo, 2017; Anwar et al., 2021c). Several other studies have also concluded that entrepreneurial motivation significantly enhances an individual’s entrepreneurial intention (Anwar et al., 2021c; Hassan et al., 2021a; 2021b; Lang and Liu, 2019). Barba-Sánchez and Atienza-Sahuquillo (2018) also assert that certain enterprising aspirations, driven by motivations, result in stronger entrepreneurial intention among individuals. Hence the second hypothesis is:

- *H2*: Entrepreneurial motivation positively influences entrepreneurial intention.

Entrepreneurial creativity and intention link

The evolution of innovative and constructive ideas in the mind of an individual is referred to as individual creativity (Amabile, 1996), which may arise due to interrelatedness between the individual and the environment (Mumford

et al., 2007). “Entrepreneurial creativity”, as used in this article, refers to an entrepreneur’s capability to identify and leverage business prospects for producing and executing innovative thoughts, resulting in the creation of new enterprises or the revitalization of current businesses (Amabile, 1997; Biraglia and Kadile, 2017; Puhakka, 2012). In entrepreneurialism, creativity at the individual level refers to the integration of different resources for the creation of newer and innovative ideas (Chua and Bedford, 2016; Shi et al., 2020). Creativity is considered an indispensable personal factor given its relevance to the identification or creation of business opportunities through the generation of innovative ideas that lead to venture creation (Hansen et al., 2011).

Creativity elevates an individuals’ innovativeness and makes them explore more viable business opportunities with original ideas (Ahlin et al., 2014). Several studies have identified entrepreneurial creativity as an important determinant of entrepreneurial intention given its role in recognizing potential and new business prospects (Biraglia and Kadile, 2017; Hansen et al., 2016; Shrader, 2004). Feldman and Bolino (2000) suggest that those who possess a higher level of entrepreneurial creativity are more likely to carry out entrepreneurial initiatives, given that entrepreneurial creativity is found to be closely associated with the motivation towards entrepreneurial intention.

Zampetakis et al. (2011) also empirically substantiate how varying levels of entrepreneurial creativity can shape entrepreneurial intention, and find that people with higher perceived levels of creativity ultimately display stronger intention towards new venture creation. Similarly, Lee et al. (2004) find that entrepreneurial creativity is positively associated with entrepreneurial intention.

In the light of the above literature, the following hypothesis is proposed:

- *H3*: Entrepreneurial creativity positively influences entrepreneurial intention.

The moderating role of entrepreneurship education

Entrepreneurship education has always been designed to lay the foundation for learning and training in entrepreneurship and for the development of entrepreneurial attitude, capabilities, creativity, orientation, passion, etc. – which ultimately lead to the formation of entrepreneurial intention (Anwar et al., 2021b; Dickson et al., 2008; Hassan et al., 2020). Entrepreneurship education strives to enhance students’ entrepreneurial skills, to enable them to discover new business possibilities and to make them creative and passionate about becoming self-employed, starting a new firm or expanding and growing an existing business component. It also aims to help students comprehend the legal and ethical aspects of the entrepreneurial process (Quality

Assurance Agency for Higher Education (QAA), 2018). Considering the role of entrepreneurship education in developing the skillset and knowledge of the entrepreneurial process, Cho (1998) considered it indispensable in the entrepreneurship development process. Cho (1998) also asserted that entrepreneurship education would have been of no use had entrepreneurial competencies been innate and could not be nurtured.

Across the domain of entrepreneurial intention, entrepreneurship education has been used both as a direct predictor and the mediator/moderator of the links between various cognitive, contextual and individual factors (entrepreneurial attitude, efficacy, passion, creativity, orientation, motivation, etc.) and intention (Anwar et al., 2020, 2021b; Hassan et al., 2021b; Roy et al., 2017). The results have shown that entrepreneurship education acts not only as a direct influencer of entrepreneurial intention but also as a moderator and mediator of the direct links between personal factors and intention (Anwar et al., 2020, 2021b, 2021c; Hassan et al., 2020, 2021a, 2021b; Roy et al., 2017).

Ahmed et al. (2017) also concluded that individuals who had been exposed to systematic entrepreneurship training and education showed improved entrepreneurial attributes such as orientation, motivation, attitude, passion and creativity, and these determinants were found significantly to predict entrepreneurial intention (Anwar et al., 2020, 2021b, 2021c; Hassan et al., 2021b). Thus the regulating role (moderating/mediating) of entrepreneurship education in fostering the direct relationships between determinants (entrepreneurial passion, creativity, motivation, etc.) and intention leads to the notion that these direct links will prove to be stronger with a high level of entrepreneurship education. Drawing on the above literature, the following hypotheses are proposed:

- *H4*: Entrepreneurship education positively moderates the relationship between entrepreneurial passion and intention.
- *H5*: Entrepreneurship education positively moderates the relationship between entrepreneurial motivation and intention.
- *H6*: Entrepreneurship education positively moderates the relationship between entrepreneurial creativity and intention.

Conditional interaction effect of fear of failure

The development of the concept of fear of failure is linked to the theory of achievement motivation. Avoidance of failure in carrying out any task or activity is intuitive in people's behavior (Cacciotti et al., 2016). As Birney et al. (1969) note, the inner anxiety of people when they believe they may not reach a certain objective is referred to as fear of failure. The drive to achieve and the urge to avoid

consequences for failure are diametrically opposed: for most people, fear of failure is beyond their control and thus bars them from carrying out an act that is meant to achieve their goal (Kong et al., 2020). However, Bandura's (1977) performance accomplishment source of self-efficacy posits that in the early/nascent stage of entrepreneurialism, successes raise one's self-efficacy while repeated failures significantly hamper self-efficacy, thereby weakening intentionality. Since fear of failure leads to a dilemma in relation to acting on a behavior, it may hamper one's likelihood of performing a task (Lipshitz and Strauss, 1997). Apprehension in the entrepreneurship development process may lead to hesitant decision making and hence hamper entrepreneurial intention and behavior. This apprehension may be due to fear of failure, with more risk-averse individuals more nervous of being a failure in the entrepreneurial undertaking (Ekore and Okekeocha, 2012; Ng and Jenkins, 2018). Fear of failure not only induces nascent entrepreneurs to be risk-averse and precludes them from engaging in entrepreneurial activity; it also undermines the role of entrepreneurship education and training in developing entrepreneurial skills by instilling the fear and threat of business failure (Hunter et al., 2021; Kollmann et al., 2017; Morgan and Sisak, 2016). In today's competitive business scenario, where the victorious are revered and admired while failures are looked down on, a sense of business failure negatively affects nascent entrepreneurs' attitudes and consequently can preclude them from future entrepreneurialism, encouraging a mindset of risk aversion (Politis and Gabrielsson, 2009; Shepherd, 2004).

Morgan and Sisak (2016) also affirmed that budding entrepreneurs could refrain from starting an entrepreneurial journey due to fear of failure. Several studies have been conducted to examine the direct influence of various determining factors (entrepreneurial attitude, self-efficacy, motivation, creativity, passion, alertness, orientation, etc.) on entrepreneurial intention while cognizing the moderating role of demographic factors (Hassan et al., 2020), entrepreneurial inclination (Anwar et al., 2021c), education (Anwar et al., 2020), etc. Wennberg et al. (2013) found that fear of failure hindered an individual from making an entrepreneurial entry. (Arafat and Saleem, 2017) also empirically confirmed that fear of failure was a cognitive barrier in the formation of entrepreneurial intention. However, all the research concerning the phenomenon of fear of failure has either investigated it as a direct influence on intention or as a mediator between other personal/cognitive factors and intention; no study has previously explored its interactive influence on the interplay between personal factors, entrepreneurship education and training, and intention. Therefore, this study conceptualizes the conditional interactive role of fear of failure to investigate how it conditions the direct relationships between entrepreneurial passion, motivation, creativity and intention

while these links are being moderated by entrepreneurship education. The following hypotheses are therefore proposed:

- *H7*: Fear of failure conditions the moderating effect of entrepreneurship education on the relationship between entrepreneurial passion and intention such that this relationship is strongest at a high level of entrepreneurship education with no fear of failure (versus a low level of entrepreneurship education with fear of failure).
- *H8*: Fear of failure conditions the moderating effect of entrepreneurship education on the relationship between entrepreneurial motivation and intention such that this relationship is strongest at a high level of entrepreneurship education with no fear of failure (versus a low level of entrepreneurship education with fear of failure).
- *H9*: Fear of failure conditions the moderating effect of entrepreneurship education on the relationship between entrepreneurial creativity and intention such that this relationship is strongest at a high level of entrepreneurship education with no fear of failure (versus a low level of entrepreneurship education with fear of failure).

Materials and methods

The current research conceptualizes the direct role of entrepreneurial passion, motivation and creativity on intention, and then tests the moderating role of entrepreneurship education on these direct relationships among undergraduate and postgraduate business and management students in five different universities in India. The study also tests the conditional interaction effect of students' perception of fear of failure on the moderating effect of entrepreneurship education and ascertains whether the direct relationships between entrepreneurial passion, motivation, creativity and intention are strongest for students with no fear of failure at the high level of entrepreneurship education and weakest for students with fear of failure at the low level of entrepreneurship education. For the purpose, a cross-sectional design was used to collect the data using a survey instrument.

Participants and data collection

As noted above, the sample was comprised of undergraduate and postgraduate students from five different universities in India: there were Aligarh Muslim University, CSJM University, Jamia Millia Islamia University, KMC Language University and the University of Lucknow. Convenience sampling was applied for the data collection. A total of 1315 students were requested to fill the questionnaire through Google Forms, and 1126 responses were retrieved for the data screening and preparation process.

Questionnaire development

The survey instrument was developed in two sections. The first section was designed to gather demographic information: age, gender, education and father's occupation. The second section was dedicated to measuring the study variables on a seven-point Likert-type scale. Scales from published studies were borrowed and were adapted to the needs of the study. Measurement scales for entrepreneurial intention and education were taken from the study by [Liñán and Chen \(2009\)](#). The study of [Cardon et al. \(2013\)](#) was the source for a four-item scale to measure entrepreneurial passion. Five-item scales for entrepreneurial motivation and creativity were taken from [Solesvik \(2013\)](#) and [Biraglia and Kadile \(2017\)](#), respectively. Since the study instrumentalizes the conditional interaction effect of fear of failure, this was measured by posing the following question: "Would fear of failure prevent you from starting a business?" This was used by the GEM Consortium in its Global Report, 2020–21 ([Bosma et al., 2021](#)). Students who responded "yes" were coded as "with fear of failure", while those who responded "no" were coded as "with no fear of failure". Items used to measure latent variables are given in the [Appendix](#).

Data preparation

The raw data received from the respondents were first processed for screening and cleaning by checking missing and improper responses and statistical outliers. The data were gathered using Google Forms, and no missing responses were found in the dataset. However, it is always advisable to check for unengaged or improper responses and, on investigation, 15 such responses were found and removed. Further, the authors also looked into the identification of statistical outliers using Cook's distance method. Twenty-one responses with a Cook's statistic >1 were considered as potential outliers and were deleted from the data ([Pituch and Stevens, 2015](#)). Thus the study achieved a final sample of 1090 responses. [Table 1](#) shows the demographic profile of the respondents, while the data sample synthesis is shown in [Table 2](#).

Results

Measurement model: fit indices, reliability and validity

After the data screening process, the study assessed the suitability and appropriateness of the data through the application of the CFA model in AMOS v23.0. Since the study's six latent variables (entrepreneurial intention, passion, motivation, creativity and entrepreneurship education) were measured through 25 observed items, the study drew a

CFA model, and the fit indices were assessed for their appropriateness. The fit indices (see Table 3) were found in the excellent category, suggesting that the data had a good fit with the measurement model. In order to ensure that the observed items were sufficiently convergent with their respective latent constructs, standardized loadings from each latent variable to their observed items should not be less than 0.707, which accounts for a minimum 50% (squared loading) variance extraction (Bagozzi and Yi, 1988; Hair et al., 1998). The results in Table 3 confirm that each latent variable displays sufficient convergence ($AVE > 0.50$) with their observed items, therefore, conforming with the criterion of convergent validity (Fornell and Larcker, 1981; Hair et al., 2006). The study also checked for construct reliability statistics (Cronbach's alpha and composite reliability), and values for both the validity statistics were found well above the standard limit of 0.70 (Bagozzi and Yi, 1988; Hair et al., 2006).

As CB-SEM also assumes divergent validity among latent constructs, the study ensured it by comparing each latent variable's squared root of AVE with its correlation with other latent constructs. Divergent validity among the latent variables persists when the squared root of AVE (bold values on the diagonals in Table 4) are greater than the correlation values below off-diagonal values (Chin et al., 1997). The results in Table 4 confirm the divergent validity of the latent constructs as the bold values on the diagonals (the squared roots of AVEs) are greater than the off-diagonal values. Table 4 also exhibits the statistics for the mean and SD for the descriptive picture of the latent variable, while

Table 1. Respondents' demographic profile ($N = 1090$).

Variable name	Category	Frequency	Percentage (%)
Age	18–20	567	52.0
	21–23	408	37.4
	24 and above	115	10.6
Gender	Male	612	56.1
	Female	478	43.9
Education	Undergraduate	693	63.6
	Postgraduate	397	36.4

Table 2. Data sample synthesis.

University	Fear of failure		Total
	Yes	No	
Aligarh muslim university, Aligarh	127	105	232
CSJM university, Kanpur	118	98	216
Jamia millia Islamia university, New Delhi	108	118	226
KMC Language university, Lucknow	123	92	215
University of Lucknow, Lucknow	89	112	201
<i>Total</i>	<i>565</i>	<i>525</i>	<i>1090</i>

skewness statistics are reported to fulfil the assumption of multivariate normality. According to Kline (1998), data tend to be normal when skewness statistics for latent variables range between -1 and $+1$, which is the case in the present study, thus fulfilling the assumption.

Hypothesis testing (direct effect)

This study has postulated three hypotheses related to testing the direct effect of entrepreneurial passion (H1), motivation (H2) and creativity (H3) on intention. The results from the SEM model (see Table 5) were found to be in support of the hypotheses, maintaining that entrepreneurial passion ($\beta = 0.396$; p -value < 0.01), motivation ($\beta = 0.452$; p -value < 0.01), and creativity ($\beta = 0.411$; p -value < 0.01) positively augment entrepreneurial intention and thereby leading to acceptance of H1, H2 and H3.

Moderating effect

In addition to cognizing the hypotheses corresponding to direct relationships, the study also checked for the moderating effect of entrepreneurship education on the relationships between entrepreneurial passion (H4), motivation (H5) creativity (H6), and intention such that these relationships would be stronger at the high level ($+1$ SD) of entrepreneurship education. The results in Table 5 infer that education significantly enhances the direct relationships between entrepreneurial passion ($\beta = 0.127$; p -value < 0.05), motivation ($\beta = 0.142$; p -value < 0.05), creativity ($\beta = 0.158$; p -value < 0.05), and intention, thus leading to acceptance of H4, H5 and H6.

Conditional interaction effect (moderated-moderation)

The authors have also hypothesized the conditional interaction effect (moderated-moderation) of students' perception of fear of failure (yes/no) on the moderating role of entrepreneurship education in the relationships between entrepreneurial passion (H7), motivation (H8), creativity

Table 3. CFA model fit indices, Alpha, CR and AVE.

Model	CMIN/DF	GFI	TLI	CFI	RMSEA
CFA model	1.586	0.943	0.976	0.972	0.032
Recommended value	Acceptable 1–3 Wheaton et al. (1977)	≥0.90 Shevlin and Miles (1998)	≥0.95 Hu and Bentler (1999)	≥0.95 Hu and Bentler (1999)	<0.07 MacCallum et al. (1996)
Variable name		No. of items	Alpha (α)	CR	AVE
Entrepreneurial intention		6	0.904	0.911	0.712
Entrepreneurial passion		4	0.875	0.881	0.702
Entrepreneurial motivation		5	0.855	0.862	0.644
Entrepreneurship creativity		5	0.866	0.871	0.693
Entrepreneurship education		5	0.901	0.909	0.659

Table 4. Correlations, divergent validity and descriptive statistics.

Variable name	Mean	SD.	Skewness	EI	EP	EM	EC	EE	FoF
Entrepreneurial intention	4.785	1.597	-0.516	0.844					
Entrepreneurial passion	4.385	1.051	-0.171	0.572**	0.838				
Entrepreneurial motivation	5.217	1.418	-0.805	0.687**	0.427**	0.802			
Entrepreneurial creativity	4.537	1.258	-0.339	0.586**	0.522**	0.542**	0.832		
Entrepreneurship education	5.034	1.266	-0.557	0.559**	0.475**	0.614**	0.552**	0.812	
Fear of failure	1.48	0.452	0.242	-0.576**	-0.477**	-0.441**	-0.503**	-0.374**	1

Note: Squared root of AVE is shown in bold on diagonals; it should be greater than the off-diagonal values for divergent validity. **Correlations are significant at the 0.01 level. EI = Entrepreneurial Intention; EP = Entrepreneurial Passion; EM = Entrepreneurial Motivation; EC = Entrepreneurial Creativity; EE = Entrepreneurship Education; FoF = Fear of Failure.

Table 5. Standardized direct, interaction and conditional interaction effects.

Independent variables	Dependent variable: Entrepreneurial Intention		Conditional interaction effects			
	Direct effect	Interaction effect	At high EE (+1 SD.)		At low EE (-1 SD.)	
			With FoF	With no FoF	With FoF	With no FoF
Entrepreneurial passion (EP)	0.396***					
Entrepreneurial motivation (EM)	0.452***					
Entrepreneurial creativity (EC)	0.411***					
EP*EE		0.127**				
EM*EE		0.142**				
EC*EE		0.158**				
EP*EE*FoF		0.642**	0.265 ^{NS}	0.697**	0.102 ^{NS}	0.477**
EM*EE*FoF		0.582**	0.203 ^{NS}	0.664**	0.119 ^{NS}	0.505**
EC*EE*FoF		0.604**	0.153 ^{NS}	0.701**	0.191 ^{NS}	0.296 ^{NS}

Note: Standardized effects are significant at 5%, i.e., ** $p < 0.05$, and 1%, i.e., *** $p < 0.01$ level. EP = Entrepreneurial Passion; EM = Entrepreneurial Motivation; EC = Entrepreneurial Creativity; EE = Entrepreneurial Education; FoF = Fear of Failure.

(H9) and intention such that these moderated relationships would further be conditioned by fear of failure. For testing the moderated-moderation effects, the study employed Model-3 in Process Macro for SPSS v4.0 with the bias-corrected method at 5000 bootstrap resamples (Hayes, 2017). The results in Table 5 relating to conditional interaction effects infer that the moderating effect of entrepreneurship education is significantly conditioned by the students' perception of fear of failure for each direct relationship. Fear of failure significantly conditions the links between entrepreneurial passion ($\beta = 0.642$; CIs at 95% = 0.271, 0.643), motivation ($\beta = 0.582$; CIs at 95% = 0.190, 0.534), creativity ($\beta = 0.604$; CIs at 95% = 0.223, 0.581) and intention, thus leading to acceptance of H7, H8 and H9. Looking at the conditional interaction effects of the hypothesized relationships, it is observed that all the direct relationships are strongest and positive at the high level of entrepreneurship education (+1 SD) with no fear of failure. In contrast, these relationships are found weakest and insignificant even at the high level of entrepreneurship education when coupled with fear of failure.

Discussion

In the recent past, many studies have been carried out to understand the phenomenon of behavioral intention towards entrepreneurship using different theories, approaches and variables while instrumentalizing mediation and moderation approaches (Anwar et al., 2020, 2021a; Bazan et al., 2019; Hassan et al., 2021a). Determinants from different dimensions – personality traits, demographic, economic, cognitive, intellectual, contextual, etc. – have been predominantly used to predict entrepreneurial intention and have been largely successful, but a common consensus remains unattained (Anwar et al., 2021c; Gill et al., 2021; Krakauer et al., 2018). Many studies have focused on the role (mediating or moderating) of entrepreneurship education in the links between various cognitive and intellectual predictors and entrepreneurial intention; however, hardly any studies have also taken the fear of failure into consideration (Roy et al., 2017; Kong et al., 2020; Anwar et al., 2021c; Cacciotti et al., 2016). The concept of fear of failure has been associated with the theory of achievement motivation and posits that an individual refrains from a situation of failure while performing an action or task (Cacciotti et al., 2016; Kong et al., 2020). The present study has taken three cognitive variables – entrepreneurial passion, motivation and creativity – as the direct predictors of entrepreneurial intention while moderating these associations by entrepreneurship education in such a way that the moderated links interact with fear of failure (yes/no) at the low and high level of education. The study hypothesized that the direct relationships would be strongest at the high

level of entrepreneurship education with no fear of failure and vice-versa.

Hypotheses H1–H3 were postulated for cognizing the direct influence of entrepreneurial passion (H1), motivation (H2) and creativity (H3) on intention, and the hypotheses are found to be supported with the path coefficients at 0.369, 0.452 and 0.411, respectively. These results support earlier findings (Anwar et al., 2021c; Biraglia and Kadile, 2017; Hassan et al., 2021b; Kong et al., 2020), inferring that entrepreneurial intention is significantly strengthened by entrepreneurial passion, motivation and creativity. The study suggests that individuals with a high degree of passion are more likely to seek their livelihoods by entrepreneurial means than those who are less passionate about entrepreneurship (Biraglia and Kadile, 2017; Thorgren and Wincent, 2015). Furthermore, entrepreneurial motivation was also found to substantially influence intention towards entrepreneurship, thus suggesting that higher entrepreneurial motivation leads to a more favorable attitude and stronger self-efficacy towards entrepreneurship which in turn will lead to stronger behavioral intention towards starting a business (Anwar et al., 2021c; Hassan et al., 2021b). Lastly, entrepreneurial creativity was also found to affect intention significantly. This finding signifies that having entrepreneurial creativity makes a person a prominent aspirant for starting an entrepreneurial journey. Innovative and creative thinking brings in newer ideas and helps an individual in the search for potential entrepreneurial opportunities (Shahab et al., 2019; Biraglia and Kadile, 2017).

This study also conceptualizes the moderating role of entrepreneurship education on the direct influence of entrepreneurial passion (H4), motivation (H5) and creativity (H6). The results align with those of previous studies (Anwar et al., 2020; Hassan et al., 2020). The entrepreneurial passion–intention link was found to be moderated by education with a path coefficient at 0.127 (p -value < 0.05), indicating that the magnitude of this relationship becomes stronger by 12.70% when the perceived level of entrepreneurship education is high. Further, the link between entrepreneurial motivation and intention was also found to be enhanced by 14.20% ($\beta = 0.142$; p -value < 0.05) from the baseline of the direct relationship. Lastly, the direct association between entrepreneurial creativity and intention was also moderated positively, and the strength of the direct relationship was increased by 15.80% ($\beta = 0.158$; p -value < 0.05). Considering the findings related to the moderating role of entrepreneurship education, it can be concluded that the influence of entrepreneurial passion, motivation and creativity on intention becomes even stronger for those students who perceive high entrepreneurship education. Thus, students filled with passion for entrepreneurship, with a high degree of entrepreneurial motivation and with a creative mindset need to be exposed to entrepreneurship education programs so that they can become more likely to

start a new venture (Anwar et al., 2021c; Hassan et al., 2021b; Ng and Jenkins, 2018).

The authors also checked for the conditional interaction effect (moderated-moderation) of fear of failure on the moderated paths to ascertain whether having or not having a fear of failure dampens or enhances the moderating role of entrepreneurship education on the relationships between entrepreneurial passion (H7), motivation (H8), creativity (H9) and intention. The results support the study's hypothesized direction and confirm that the moderation effects of entrepreneurship education on the direct relationships are further enhanced when the individuals do not have a fear of failure and perceive a high level of entrepreneurship education. Precisely, the influence of entrepreneurial passion, motivation and creativity on intention is found strongest when individuals perceive no fear of failure with a high level of entrepreneurship education, while these relationships are found to be weakest and insignificant when there is fear of failure with a low level of entrepreneurship education (see Table 5). Interestingly, the findings suggest that all three direct relationships become insignificant when the individuals perceive fear of failure (even at a high level of education), thereby signifying the role of fear of failure in determining the magnitude of direct relationships between entrepreneurial passion, motivation, creativity and intention while being moderated by entrepreneurship education.

Implications: Theory and practice

The study findings have implications for both theory and practice. First, this paper contributes to the scarce literature on the direct links between entrepreneurial passion, motivation, creativity and intention in the Indian setting. Second, the study instrumentalizes the moderating role of entrepreneurship education in the above-mentioned direct relationships. Previously, studies have tested the moderating or mediating role of entrepreneurship education (Anwar et al., 2020, 2021c; Hassan et al., 2020) but none has taken entrepreneurial passion and creativity as the predictors of intention, leaving a gap now filled by the current study. Third, the paper contributes to the existing literature on the moderating role of entrepreneurship education by cognizing the conditional interaction effect (moderated-moderation) of fear of failure on the moderating effects of entrepreneurship education. Although earlier studies have often explored the direct influence of fear of failure (Kong et al., 2020; Ng and Jenkins, 2018; Arafat and Saleem, 2017) on intention, none has checked for either the moderation or conditional moderation effect of fear of failure while coupling it with entrepreneurship education; thus this is a further contribution to the literature on fear of failure (Cacciotti et al., 2016).

In addition to contributing to the literature on entrepreneurial passion, creativity, education and fear of failure,

the study offers valuable suggestions for universities, institutions and policymakers. Based on the findings, the authors recommend igniting passion and instilling entrepreneurial creativity and motivation among university students to strengthen their entrepreneurial intention. Considering the Indian context, where the majority of nascent entrepreneurs (56.80%), according to the GEM Global Survey (2021–2022), suffer from fear of failure, entrepreneurship education programs need to be made more effective by basing them on real-world learning. Aspiring entrepreneurs should be taught with more experimentation in order to make them less risk-averse (Henry et al., 2005). They should be exposed to the real-life stories of successful entrepreneurs so that they become passionate and motivated towards entrepreneurship. Students should also be required to be creative and not be scared of failure to be successful in an entrepreneurial journey. While selecting the candidates for entrepreneurship training and education courses, students with no fear of failure should be preferred. Moreover, during such programs, the concept of junior enterprising should be introduced to give students the experience of real enterprise. This would also help in eliminating or reducing their fear of failure and would make them more passionate, motivated and creative. Entrepreneurship education curricula in Indian higher education institutions should be designed to focus on the development of both soft skills and entrepreneurial competencies in nascent entrepreneurs to make them capable of reacting and taking decisions in different circumstances and contexts.

Limitations

In spite of rigor and care with regard to theory and methods, some drawbacks of this research should be mentioned. First, the study used a large sample of university students, but this is not representative of the entire country as the participants were drawn only from universities situated in the northern region of India. This limitation opens a path for future research to take samples from the universities in other states. Second, the research design is cross-sectional and hence the study may not assess the causality more accurately as perceptions measured at a single point in time may change in the future; thus, there is scope for a longitudinal study. Third, only three cognitive factors, entrepreneurial passion, motivation and creativity, have been considered in this study to predict behavioral intention. In future research, contextual, intellectual and social factors might be taken into account to expand the research model. Lastly, the study used a moderated-moderation approach taking entrepreneurship education as the moderator and fear of failure as the conditional moderator. Future research might take gender as a conditional moderator or even investigate for two-level moderated-mediation by taking education as the mediator and gender and fear of failure as first- and second-level moderators, respectively.

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Ethics approval

Data were anonymized. No personal information such as contact numbers and email addresses was solicited. The study was therefore exempted from ethical approval by the corresponding author's institutional ethics committee.

Informed consent

Informed consent was obtained from all individual participants included in the study. Respondents were informed in advance about the theme for the questionnaire, and a set of sample questions was provided to them before sending the full survey instrument.

Data availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

ORCID iDs

Imran Anwar  <https://orcid.org/0000-0002-2104-1325>

Maebeama Thoudam  <https://orcid.org/0000-0001-5924-0525>

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Appendix

Construct names, survey items and source of adoption.

Entrepreneurial Intention

Source: [Liñán and Chen \(2009\)](#)

Indicate your level of agreement with the following statements from 1 (total disagreement) to 7 (total agreement). Value them from 1 (total disagreement) to 7 (total agreement).

1. I can control the creation process of a new business.
 2. If I tried to start a business, I would have a high probability of success.
 3. Starting a business and keeping it functional would be easy for me.
 4. I know the necessary practical details to start a business.
 5. I am prepared to start a viable business.
 6. I know how to develop an entrepreneurial project.
-

Entrepreneurial passion

source: [Cardon et al. \(2013\)](#)

Indicate your level of agreement with the following statements from 1 (total disagreement) to 7 (total agreement). Value them from 1 (total disagreement) to 7 (total agreement).

1. Owning a company will be energizing for me.
 2. Nurturing a new business through its emerging success will be enjoyable for me.
 3. Establishing a new company is exciting for me.
 4. Becoming a founder of a business is a very important part of who I want to be.
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Entrepreneurial motivations

source: [Solesvik \(2013\)](#)

Indicate your level of agreement with the following statements from 1 (total disagreement) to 7 (total agreement). Value them from 1 (total disagreement) to 7 (total agreement).

1. I see many opportunities to start and grow a business.
 2. Finding potential venture opportunities is easy for me.
 3. In general, there are many opportunities for new product innovation.
 4. I have a special sense of new venture ideas.
 5. During my routine day-to-day activities, I see potential new venture ideas.
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Entrepreneurial creativity

source: [Biraglia and Kadile \(2017\)](#)

Indicate your level of agreement with the following statements from 1 (total disagreement) to 7 (total agreement). Value them from 1 (total disagreement) to 7 (total agreement).

1. I often come up with creative solutions to problems.
 2. I am good at providing a fresh approach to problems.
 3. I often come up with innovative and practical ideas.
 4. I am good at generating creative ideas.
 5. I often promote and champion ideas to others.
-

Entrepreneurship education

source: [Liñán and Chen \(2009\)](#)

To what extent do you think it is possible for entrepreneurship education courses to develop the following aspects? Indicate from 1 (not possible at all) to 7 (totally possible).

1. Knowledge about the entrepreneurial environment.
 2. Greater recognition of the entrepreneur's figure.
 3. The preference to be an entrepreneur.
 4. The necessary abilities to be an entrepreneur.
 5. The intention to be an entrepreneur.
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