

SELF-EFFICACY, ENTREPRENEURIAL PASSION, AND ENTREPRENEURIAL INTENTIONS RELATIONSHIP: MEDIATED MODERATION ROLE OF MINDSET

MONICA J

Doctoral Student, School of Commerce, Finance, and Accountancy, CHRIST (Deemed University), Bangalore, Karnataka, India. Email: monica.john1995@gmail.com

ANURADHA P S

Professor, School of Commerce, Finance, and Accountancy, CHRIST (Deemed University), Bangalore, India. Email: anuradha.ps@christuniversity.in

Abstract

Entrepreneurship has gained momentum in the digital economy. Entrepreneurship is promoted by academia, government, and other policymakers recognizing its potential to solve macroeconomic problems such as unemployment, per capita income, and so on. Entrepreneurial intentions are the product of numerous constructs. The entrepreneurial mindset, passion, and self-efficacy of individuals are prominent determinants of entrepreneurial intentions. This study aims at measuring and analyzing the relationships among self-efficacy, entrepreneurial passion, and entrepreneurial intentions of engineering students in India keeping the entrepreneurial mindset as a mediated moderator. Having adopted a descriptive research design, this study employed a structured questionnaire to collect primary data from engineering students. The study results convey that self-efficacy, entrepreneurial passion, and entrepreneurial mindset are not based on personal characteristics of the sample students such as gender, age, branch of the study, nature of the educational institution, and location of the institution. However, entrepreneurial intentions vary based on the age of the respondents and entrepreneurial intentions remain unchanged irrespective of gender, the branch of the study, the nature of the educational institution, and the location of the institution. Further, self-efficacy significantly affects the entrepreneurial intentions of the students. Passion significantly and positively mediates the self-efficacy and entrepreneurial intentions relation. However, an entrepreneurial mindset does not contribute to entrepreneurial intentions along with self-efficacy and the passion of the students.

Keywords: Self-efficacy, Entrepreneurial Passion, Entrepreneurial Intentions, Entrepreneurial Mindset.

JEL Codes: L26, M13, D91

1. INTRODUCTION

Recognizing the importance of entrepreneurship in personal and societal development, many governments have made initiatives to develop entrepreneurial skills among individuals [1]. Entrepreneurship is key to tackling unemployment [2]. One of the ways to confront the unemployment problem is through entrepreneurship [3]. Many research studies have documented that entrepreneurial education plays a significant role in the creation of entrepreneurs [4]–[6]. A vital driver of entrepreneurship is self-efficacy (SE) [7]. SE is one person's confidence in his abilities to achieve high-performance outcomes. SE keeps a person going in the business. The inclination to succeed is SE [8]. SE develops creative thinking and helps an individual in deciding to start a business [8]. SE determines the entrepreneurial

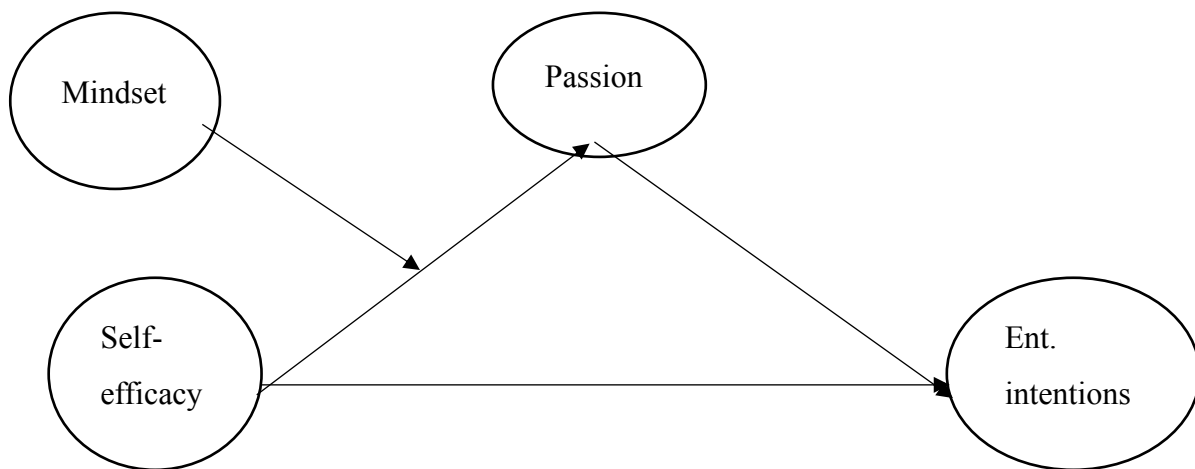
behavior of a person [9]. SE can predict a person's desire to be an entrepreneur [10]. Passion is instrumental in entrepreneurial initiatives and passion is used to examine the behaviors toward entrepreneurial initiatives [11]. "Michael Dell opined that passion should be the fire that drives your life's work" [11]. "Entrepreneurial passion (EP) is a consciously accessible, intense positive feeling experienced by engagement in entrepreneurial activities that make the entrepreneurs distinct"[11]. Passion influences Entrepreneurial Intentions (EIs) [12]. Many researchers studied the role of EP on EIs [12]–[15]. Entrepreneurial mindset (EM) is a state of mind that provides creative and new sorts of thinking abilities [16]. EM is positively related to the efficiency of individuals [16]. SE promotes attitude, not EM of the individuals [9]. Entrepreneurship has been a viable solution for major problems of a country as well as of individuals. So, entrepreneurship is given prominence by policymakers, academicians, researchers, and individuals. The intention to be an entrepreneur is influenced not only by education and training and largely depends on individual traits such as self-efficacy, attitude, passion, mindset, urge to succeed, and so on. This study investigates the self-efficacy, passion, mindset, and entrepreneurial intentions of individuals.

2. REVIEW OF EXISTING RESEARCH WORKS

Entrepreneurship is a foundation for innovation, employment, and growth of a country [17]. Entrepreneurship shapes the economy of a country [14]. In developing countries, entrepreneurship plays a vital role in their economic health [13]. Many countries have formulated policies to promote entrepreneurship. Certain countries have framed entrepreneurial education and implemented them to promote entrepreneurship [3], [8], [18]. Entrepreneurial education improves self-efficacy [8]. SE is confident to succeed in his life [18]. SE is a factor that affects entrepreneurship as it makes the person cross over all the obstacles in his entrepreneurship venture [19]. SE explains the EI and behavior of a person [8]. SE provides a choice of life goals and activities [20]. SE affects EIs positively [20]. The intention is a basis for behavior [21]. EI is a strong desire to be an entrepreneur [10]. Two models explain entrepreneurial intentions. The first one is the "Theory of Planned Behavior" (TPB) and the next one is the "Entrepreneurial Event Model" (EEM) [10]. The TPB is a theory that focuses on individual behavior [21]. Individuals focus on intentions [22]. According to Shapero's Entrepreneurial Event Model, "desirability, feasibility and an inclination to act are the determinants of a person's intention to start the business" [23]. The TPB helps in understanding entrepreneurial behavior [6]. Thus, SE is to a larger extent affected by "entrepreneurial education" (EE), and in turn, SE leads to EIs. Passion's part in entrepreneurial intentions is less explored. Passion is a critical factor in forming intentions to start new businesses [24]. Passion nurtures creativity [19]. "Entrepreneurial passion (EP) involves consciously accessible, positive feelings" that result from "engagement in activities that have identity meaning and salience to the entrepreneur" [7]. The theory of entrepreneurial passion was advocated by Cardon (2009). According to this theory, passion is stimulated not because some entrepreneurs are interested in entrepreneurial activities, but because those entrepreneurs are involved in meaningful activities and this would bring a uniqueness [11]. EP is a strong excitement a person gets while doing entrepreneurial work [11]. Passion is a vital part of the entrepreneurial

experience along with affection and emotions [19]. EP mediates SE and persistence relation [7]. Mindset is a state of mind that induces creative and critical thinking [16]. An entrepreneurial mindset affects entrepreneurial intentions, attitudes, and behaviors [9]. Existing research works convey that SE is a significant indicator of EIs. Further, very limited research works have been conducted to find out the role of EP and EM in explaining EIs. So, this study aims at measuring the mediating role of passion in SE to SIs relationship and aims at mediated moderation role of EM in SE to EIs relationship. Based on the research gap identified, the given below research model is framed.

Figure -1: Proposed Research Model



3. RESEARCH METHODOLOGY

3.1. Research Framework

A descriptive research design has been employed and examines a causal type of investigation. Constructs of the study are self-efficacy, entrepreneurial intentions, passion, and entrepreneurial mindset. A survey is employed to collect primary data. The unit of analysis is the students who pursue engineering programs in Bangalore, India. A structured questionnaire is devised to collect information relating to self-efficacy, entrepreneurial intentions, passion, entrepreneurial mindset, and personal information of the unit of analysis. The questionnaire has 2 parts to measure the core variables such as SE, entrepreneurial intentions, passion, entrepreneurial mindset, and personal information. This study is conducted at a stretch and so, the study is a cross-sectional one.

3.2. Sample design

The population of this study is the students pursuing engineering programs at the undergraduate and graduate levels in India. However, on account of feasibility, the target population is decided as students pursuing engineering programs at undergraduate and graduate levels in Bangalore. Bangalore has been a start-up hub and provides ample job opportunities. Bangalore accommodates many prestigious educational institutions and universities. There are more than

5 lakh engineering students in Bangalore. The sample size has been determined using Krejcie and Morgon's (1970) formula. According to Krejcie and Morgon's table, when the population of the study is above 5 lakhs, the sample size will be 382 at a 95% level of significance. So, the sample size is 382. The judgment sampling technique is applied to gather the data from the respondents.

3.3. Measurement of the variables

Variables of the study such as self-efficacy, entrepreneurial mindset, entrepreneurial passion, and entrepreneurial intentions of engineering students are measured using appropriate scales available. Based on a thorough literature survey, measurement scales are finalized and shown in the following table.

Table – 1: Measurement Scales

Variable	Scale Name	Author (s) and Year	No of items
EM	Entrepreneurial mindset scale	[9]	6
EP	EP scale	[19]	13
SE	Self-efficacy scale	[20]	4
EIs	EIs scale	[25]	6

3.4. Pilot study

After finalizing the questionnaire, a preliminary study is conducted to check the reliability of the scales and the questionnaire. 54 responses are taken from engineering students across Bangalore. Alpha scores for the constructs such as self-efficacy, entrepreneurial intentions, passion, and entrepreneurial mindset are 0.779, 0.913, 0.900, and 0.710 respectively. Since alpha scores are found satisfactory, the main study is conducted.

4. RESULTS AND ANALYSIS

Data collected using the questionnaire is checked for the normality character of the variables. Normality tests reveal that self-efficacy, entrepreneurial intentions, passion, and entrepreneurial mindset are not normally distributed. The personal characteristics of the sample respondents are presented in this section. 64.9% of the students are male students and 35.1% of the sample units are female students. 56% of the students are in the age group of 17 years to 20 years and 44% are more than 20 years. Most of the students pursue Computer Science Engineering (56%). 94.2% of the sample engineering institutions are private institutions and 5.8% of the institutions are government aided. All engineering institutions are in urban areas. Further, variations in perceptions of self-efficacy, entrepreneurial intentions, passion, and entrepreneurial mindset are measured and discussed here.

Table 2: Self-efficacy

Factors	P-value	Result
Gender	0.312	NS
Age	0.884	NS
Branch of the study	0.266	NS
Nature of educational institution	0.443	NS
Location	0.696	NS

Source: Primary data, NS represents Not Significant, and S represents Significant.

The self-efficacy of the sample students does not vary based on their personal information such as gender, age, a branch of the study, nature of the educational institution, and location of the institution as p-values are more than 0.005 (Table – 2). Since self-efficacy is not based on personal characteristics, self-efficacy is the product of other variables such as education, training, and environment.

Table 3: Entrepreneurial Intentions

Factors	P-value	Result
Gender	0.003	S
Age	0.652	NS
Branch of the study	0.555	NS
Nature of educational institution	0.103	NS
Location	0.455	NS

Source: Primary data, NS represents Not Significant, and S represents Significant.

Entrepreneurial intentions of the sample students vary based on the age of the students. Entrepreneurial intentions do not vary based on other personal information such as gender, the branch of study, the nature of the educational institution, and the location of the institution (Table – 3).

Table 4: Passion

Factors	P-value	Result
Gender	0.991	NS
Age	0.264	NS
Branch of the study	0.362	NS
Nature of educational institution	0.904	NS
Location	0.984	NS

Source: Primary data, NS represents Not Significant, and S represents Significant.

The passion of the sample students does not vary based on their personal information such as gender, age, branch of the study, nature of the educational institution, and location of the institution (Table – 4).

Table 5: Entrepreneurial Mindset

Factors	P-value	Result
Gender	0.309	NS
Age	0.819	NS
Branch of the study	0.326	NS
Nature of educational institution	0.636	NS
Location	0.759	NS

Source: Primary data, NS represents Not Significant, and S represents Significant.

The entrepreneurial mindset of the sample students does not vary based on their personal information such as gender, age, branch of the study, nature of the educational institution, and location of the institution (Table – 5). The mediating role of passion in SE to EIs of the sample students is measured and evaluated using PROCESS procedure model 4 [26].

Table – 6: Overview of Model

R	r ²	MSE	F	P
0.5436	0.2955	0.2937	159.4256	0.000

Dependent variable: Passion

Tables 6 and 7 show that the model is significant (Table – 6). Self-efficacy significantly affects the passion of the sample students (Table – 7).

Table – 7: Model

Particulars	Coefficients	SE	t	P
Constant	2.3242	0.1315	17.6703	0.000
Self-efficacy	0.4422	0.0350	12.6264	0.000

Dependent variable: Passion

Tables 8 and 9 reveal the mediating effect of the passion of the students. The mediation model is significant (Table – 8). 74.40% variance is explained by self-efficacy and passion.

Table – 8: Overview of Model

R	r ²	MSE	F	P
0.7440	0.5535	0.3935	234.9472	0.000

Dependent variable: Entrepreneurial Intentions

Table – 9 presents the impact of SE and EP on the EIs of the sample students. Both SE and EP affect EIs significantly. So, indirect effects from self-efficacy to passion (Table – 7) and passion to entrepreneurial intentions (Table – 9) are significant.

Table – 9: Model

Particulars	Coefficients	SE	t	P
Constant	-.7120	0.2055	-3.4652	0.006
Self-efficacy	0.3422	0.0483	7.0854	0.000
Passion	0.7922	0.0594	13.3427	0.000

Outcome variable: Entrepreneurial Intentions

A direct relation between SE and EIs of the students is significant and EIs of the students are explained by 34.22% (Table – 10).

Table – 10: Direct Effect

Effect	SE	t	P
0.3422	0.0483	7.0854	0.000

The total indirect effect is presented in Table – 11. The total indirect effect of EP in SE and EIs relation is 35.03% and it is significant.

Table – 11: Indirect Effect

Mediator	Effect	BootSE	BootLLCI	BootULCI
Passion	0.3503	0.0495	0.2610	0.4524

Tables 6 to 11 indicate that SE affects EIs significantly and further, passion significantly mediates the relationship between SE and EIs of the sample students.

Mediated moderation is moderation in the mediation effect. In this study, the moderation role of entrepreneurial mindset on the indirect effect of passion in SE and EIs is analyzed. Mediated moderation analysis is carried out using model 7 of Process Macro. Tables 12 to 14 present mediated moderation analysis. Table – 12 indicates that mediated moderation analysis model is significant.

Table – 12: Overview of Model

r	r ²	MSE	F	P
0.5903	0.3484	0.2731	67.3694	0.000

Outcome variable: Passion

Self-efficacy affects passion significantly. But the entrepreneurial mindset and interaction of self-efficacy and entrepreneurial mindset insignificantly affect the passion of the students (Table – 13). Since the interaction of self-efficacy and entrepreneurial mindset is insignificant, the moderation role of entrepreneurial mindset on mediation is also insignificant.

Table – 13: Model

Particulars	Coefficients	SE	t	P
Constant	2.0675	0.5023	4.1159	0.000
Self-efficacy	0.2863	0.1359	2.1062	0.035
Entrepreneurial mindset	0.1755	0.1565	1.1213	0.262
Interaction term	0.0166	0.0401	0.4137	0.679

Outcome variable: Passion

Table – 14: Test of unconditional interaction

Particulars	r ² Change	F	P
Self-efficacy * mindset	0.0003	.1711	0.679

Outcome variable: Passion

Unconditional interaction results show that the change in impact (r^2 change) is very nominal, and this impact is not significant. In other words, the moderation role of the entrepreneurial mindset in the indirect effect of passion in a direct relationship is minimal and insignificant. So, it can be said that the entrepreneurial mindset does not have mediated moderation effect on the indirect effect of passion.

5. DISCUSSIONS

Entrepreneurship is a solution to many socio-economic problems in any country. Entrepreneurship brings hope and enlightenment to the lives of people. Entrepreneurship is determined by numerous factors. This study aims at measuring and analyze the role of SE of the students on their EIs. Further, this study has evaluated the mediation role of the passion of the students in direct relations and mediated moderation role of the entrepreneurial mindset in the indirect relationship. Research results indicate that SE, EP, and EM are not based on the personal characteristics of the sample students such as gender, age, the branch of study, nature of the educational institution, and location of the institution. However, entrepreneurial intentions vary based on the age of the respondents and entrepreneurial intentions remain unchanged irrespective of gender, the branch of the study, the nature of the educational institution, and the location of the institution. Mean scores reveal that the students who are in the age group of 17 years to 20 years have more entrepreneurial intentions (3.6791) than “the students who are more than 20 years old” (3.5269). Self-efficacy significantly affects the entrepreneurial intentions of the students. The students “who are in the age group of 17 years to 20 years” along with self-efficacy characteristics exhibit more entrepreneurial intentions. Passion significantly and positively mediates self-efficacy and entrepreneurial intentions relation. So, passion motivates and promotes the entrepreneurial intentions of the students along with their self-efficacy. However, an entrepreneurial mindset does not contribute to entrepreneurial intentions along with the self-efficacy and passion of the students.

6. CONCLUSIONS

This research study aims at measuring and analyzing the impact of self-efficacy of the students who pursue engineering in India on their entrepreneurial intentions keeping passion as a mediator and entrepreneurial mindset as a mediated moderator. This study is a descriptive one. Primary data collected through structured questionnaires from the engineering students are cleaned and analyzed. Research results reveal that self-efficacy, entrepreneurial passion, and entrepreneurial mindset are not based on gender, age, the branch of the study, the nature of the educational institution, and the location of the institution. However, entrepreneurial intentions vary based on the age of the students. SE significantly affects the EIs of the students. Passion significantly and positively mediates the SE and EIs relation. However, EM does not contribute to EIs along with SE and the passion of the students. This study is a behavioral study and so, it has certain behavioral biases despite making necessary efforts to avoid them. This study can be conducted among women students and students of business studies.

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