

Relating entrepreneurial self-efficacy with entrepreneurial success: perception-based analysis of students of higher educational institutions

Mohit Taneja, Ravi Kiran & S.C. Bose

To cite this article: Mohit Taneja, Ravi Kiran & S.C. Bose (2024) Relating entrepreneurial self-efficacy with entrepreneurial success: perception-based analysis of students of higher educational institutions, Economic Research-Ekonomiska Istraživanja, 37:1, 2317145, DOI: 10.1080/1331677X.2024.2317145

To link to this article: <https://doi.org/10.1080/1331677X.2024.2317145>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 04 Apr 2024.



Submit your article to this journal [↗](#)



Article views: 685



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)

Relating entrepreneurial self-efficacy with entrepreneurial success: perception-based analysis of students of higher educational institutions

Mohit Taneja^a , Ravi Kiran^b  and S.C. Bose^b 

^aChitkara Business School, Chitkara University, Punjab, India; ^bThapar Institute of Engineering and Technology, Patiala, Punjab, India

ABSTRACT

This present research examines the effect of Entrepreneurial self-efficacy (ESE) and its sub-constructs on Entrepreneurial success (ES). The study uses primary data gathered from students, enrolled in entrepreneurial courses offered by topmost 100 ranked higher educational institutions (HEI). The questionnaire was sent to 500 students and 323 valid responses were considered (response rate: 64.6%). Among these, 195 were males, and 128 females. The study was carried out in Punjab, Haryana, and National Capital Region, regions of Northern India. The present study used SPSS software to investigate the relationship between “regressed on” and “regress on” variables. McGee’s scale was used to measure ESE. For measuring the dependent variable, i.e., “ES,” items were taken from scale of Linan, Battistelli, & Moriano. The results exhibited that three out of five sub-constructs of ESE, i.e., planning, implementing people, and implementing Finance, were positively significant to ES. The study suggests focusing on these three sub-scales for achieving success. Due policies are needed to emphasize ESE-Searching and ESE-Marshalling. In future, studies could be undertaken by taking gender and education as control variables.

ARTICLE HISTORY

Received 22 October 2022
Accepted 5 February 2024

KEYWORDS

Entrepreneurial self-efficacy (ESE); entrepreneurship; gender; entrepreneurial education (EE); entrepreneurial success (ES)

JEL CODES

O31; O35; Q01

1. Introduction

The concept of entrepreneurship is ancient and has existed in different places with a similar idea or with a little bit of modification (Obialo, 2019). It has contributed significantly in the socio-economic development of societies (Liñán et al., 2011), hence, has attracted the attention of researchers (Taneja et al., 2022). Entrepreneurship has been described as the practice of starting new businesses or stimulating old organisations, to tap new prospects (Onuoha, 2007). The person, i.e., the entrepreneur, who initiate this process have gathered equal attention from different quarters. Initially, the entrepreneur was defined as a person who takes risks (Say, 1836) or ‘a person who

CONTACT Mohit Taneja  Mohit.taneja@chitkara.edu.in

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

enters into agreements with the government to supply products at a specific price' (Link & Link, 2009). To boost the process of entrepreneurship, policy makers and academicians have adopted and implemented many programs including entrepreneurial education (EE). These education programs have been designed for improving the entrepreneurial intention (EI) and entrepreneurial capabilities of the potential entrepreneurs (Taneja et al., 2024). The key drivers of intention and performance, as investigated in the past studies, include EE (Bae et al., 2014), ESE and cultural environment (Hopp & Stephan, 2012). Among these, ESE is highly crucial for business accomplishment (Rauch & Frese, 2007) as, ESE is self-belief to become an entrepreneur (Bae et al., 2014), i.e., the belief in one's own capability to take-action on defined goals (Bandura, 1984). It has been observed that high self-efficacy is associated with greater persistence to work efficiently and solve hurdles to attain success (Dessyana & Riyant 2017). Previous literature has already confirmed the positive linkage of ESE with EI (Nowinski et al., 2019). Ajzen (1991) theory of perceived behavior (TPB), established the relationship of subjective norms (SN), perceived behavioral control (PBC) and personal attitude (PA) with individual's actual behavior through their intentions. Through this study the linkage between ESE and ES is investigated, which will be an addition to the Ajzen's (1991) TPB, which regarded perceived behavioral control (i.e., self-efficacy) a direct predictor of individual behavior.

The key objective of this research is to focus on ESE, a precondition for potential entrepreneurs (Boyd & Vozikis, 1994; Chen et al., 1998). By adopting ESE scale of McGee et al. (2009) the study examines the influence of ESE sub-constructs (like searching, planning, marshalling, implementing people, & finance) on ES, i.e., entrepreneurial success, which is measured by gauging perceptions of the students. Secondly, the current study is carried out with potential entrepreneurs (i.e., students with EI and enrolled in entrepreneurship courses) located in the three important Indian regions, which constitute a substantial part of the Indian economy with respect to entrepreneurship and witnesses' maximum number of entrepreneurial activities, like the formation of startups. Recently, New Delhi (Capital of India), central part of NCR, has achieved the status of a startup hub (Times of India, 2022).

Similar to the aim of the study (Kraus et al., 2020), the current study will intend to answer the question that "Why a limited number of people carry out entrepreneurial activities successfully after undergoing entrepreneurial training to develop their ESE?" The outcome of the study can be of great help for different set of people involved in the proliferation of entrepreneurship. It can assist policy makers in redesigning their programs and thereby facilitating proper allocation of resources more efficiently, which may help in creating an environment that is more inclined towards promoting entrepreneurial activities. It will aid the academia through its contribution in enriching the EE programs and hence the potential entrepreneurs will be benefitted by inculcating capabilities necessary for the entrepreneurship. Thereby, it will enrich the existing literature related to entrepreneurship.

1.1. Motivation of the study

In developing countries like India more than 90% new ventures fail within first five years of existence (Kumar & Asthana, 2022). On the other hand, the limited supply

of entrepreneurs in developing economies. This highlights the need for improving entrepreneurial culture in developing economies, which will contribute to poor economic performance (Schumpeter, 1971). As ESE is a precondition for venture success and students' motivation towards becoming entrepreneurs (Bagheri & Pihie, 2014), so the key intention of the current research is to examine the linkage of ESE and ES.

Another motivation was to find out the gender-wise differences in the sub-constructs of ESE. This aspect is quite significant, as women have less-representation in entrepreneurship in developing nations (Elnadi & Gheith, 2021), like in India only 14% (i.e., 8.05 million from 58.5 million) of entrepreneurs are women (Mahanty, 2022). Furthermore, as compared to women, ventures run by males are more prone to ES (Nowiński et al., 2019). For this, we applied a gender-specific ANOVA with regard to ES. In addition, we calculated the averages of the respondents' responses to learn how men and women perceive economic and social (contribution) factors. To also have comprehensive view, considering the impact of ESE on ES; it becomes essential to understand how various factors of ESE, viz. searching; planning; marshalling; implementing people, and implementing finance are associated with ES. This highlights the need to carry out a study relating factors of ESE with ES in the Indian context covering gender-wise analysis. The study gains importance in India, as only recently, women participation in entrepreneurship is showing an increasing trend; however, the number is still insignificant compared to men. A proper focus on sub-constructs of ESE may go a long way in enhancing the chances of ES. It is important to mention here that we have considered ES as dependent variable, which is measured through perception based scale developed by Liñán et al. (2008). This provided as inspiration for the current analysis as well because finding links between ESE and students' perception-based ES can provide a theoretical framework for subsequent research.

1.2. Research gaps

Extant literature reflects that some researchers regard self-efficacy as domain-specific (Bandura, 1977; Forbes, 2005), whereas others were in favor of using general self-efficacy (GSE) (Markman et al., 2002). They mostly relate ESE with EE (Elnadi & Gheith, 2021; Hockerts, 2018; Nowiński et al., 2019) or used ESE as a mediating or moderating variable (Santoro et al., 2020) to relate with ES (in terms of performance). Moreover, to a large extent, literature didn't consider the impact of ESE on other outcomes or factors that nurture ESE (Elnadi & Gheith, 2021) and the research is fragmented with the adoption of diverse theoretical approaches (Santoro et al., 2020). Multiple studies examined the relation of ESE with constructs like EE and EI, but only a few associated ESE with perception based ES (Brooks, Huang, Kearney, & Murray, 2014; Chowdhury et al., 2020; Hockerts, 2018). This less examined research field and inconsistencies in existing literature demand a pragmatic and theoretical progression of research to provide insights for investigators evaluating the relation of ESE with ES (Chowdhury et al., 2019; Kim et al., 2018).

Finally, there is literature that examines the influence of factors like environment, personality traits, and government support on ES (Santoro et al., 2020), but there is a need to explore the sub-constructs of ESE in-depth. Further, gender wise analysis has

not been taken up in a broader sense. So, the central gap which this study has tried to fill, is examining the relationship of ESE and ES from a gender viewpoint.

2. Theoretical underpinning & hypotheses development

2.1. Entrepreneurial self-efficacy

Self-efficacy (SE) motivates individuals to shape their behavior and trust their capabilities to pursue a task and perform their roles (Boyd & Vozikis, 1994; Chen et al., 1998; Forbes, 2005). SE is one's decision to adequately manage a specified state and condition with the skills they possess (Bandura, 1977). According to social cognitive behavior; self-efficacy is a precondition for behavioral control (Memon et al., 2019). Thus, SE affects every human effort made to achieve their desires and in contrast poor self-efficacy makes it difficult to achieve a given task (McGee et al., 2009). SE as a construct is apposite in analysing entrepreneurial tendency and helps to assess an individual's potential of transforming into intention to be an entrepreneur (Boyd & Vozikis, 1994).

In entrepreneurial literature, ESE may be considered rather than SE (Elnadi & Gheith, 2021; Taneja et al., 2023). One of the contributions of research on ESE involves its relation with EI. Boyd. Vozikis' (1994) extended Bird's (1988) model of EI and suggested mediating effect of ESE in determining the potency of EI, and the possibility of translating it into entrepreneurship. The conceptualisation of ESE as proposed by Bandura (1977) is widely accepted and forms the base for entrepreneurial studies. So on the basis of Bandura (1977) and others, ESE can be described as having the necessary competences that can influence one's belief for successfully instituting a new venture (Taneja et al., 2023).

Numerous researchers have studied the linkage of ESE with EI (Elnadi & Gheith, 2021; Hockerts et al., 2018; Tiwari et al., 2017), highlighting a strong (affirmative) association of ESE with EI. Palmer et al. (2019) highlighted that few ESE studies examine gender differences. Looking into the current status of the existing literature, the present study examines linkage of ESE and ES by taking students who already have strong EI and examines whether there is difference in ESE on the basis of gender, with regard to sub-constructs of ESE. The present research used McGee et al. (2009) scale to measure the ESE of the students and considers ESE as a multi-dimensional construct (i.e., 1. Searching: The idea generation phase, which includes potential entrepreneurs' creative talent and ability to innovate. 2. Planning: the phase, where an entrepreneur makes a detailed outline (plan) for converting the idea into practice. 3. Marshalling: The practical phase in which all the resources (Finance, Human and others) are assembled to take plan into existence. 4. Implementing people & finance: Fourth and fifth phase involves in one's capability to manage the funds and personnel in a corporation).

2.2. Entrepreneurial success

Extant literature states the difference that exists between the approaches used to measure the ES. Some studies judged ES through tangible factors like revenue, firms'

growth, profitability etc. (Santoro et al., 2020; Srimulyani & Hermanto, 2021). Kariv (2008) linked ES with operation status and described it as continued sales or operations and associated the ceasing of operations and trade as entrepreneurial failure. Harada (2002) related ES to accepting challenges and overcoming these through new solutions or by overcoming obstacles (Capital, Time, etc.). A successful venture is such which has passed all risks, as risk-taking is essential (Kim et al., 2018). Vesper (1990) opined that any firm or venture surviving in operation for at least three consecutive years can be termed as successful, though only ten percent have survival chances. Thus, many researchers described ES in terms of the duration of its survival (Kariv, 2008; Santoro et al., 2020), while the present study considers ES as behavior, involving initiation and performance of the entrepreneurial tasks. In other words, Snyder et al. (2002) considered this behavior or perception as hope for success, which is a motivational and cognitive state of mind (rather than emotional) to perform a task (Staniewski & Awruk, 2016).

There has been extensive curiosity among entrepreneurial researchers in examining the factors contributing to the ES due to its crucial role in the economic growth (Bello et al., 2018). ES may be related either to qualities that an entrepreneur possesses which determine venture success or it is related to financial aspects, like profit sales, etc. McClelland (1961) advocated that entrepreneurs' desperation (Hunger) for achievement contributes the most to successful entrepreneurial ventures and this depends upon multiple qualities possessed by entrepreneurs which contribute to effective decision-making (Halberstadt et al., 2021). Furthermore, the locus of control, self-assurance, innovativeness, openness and autonomy cannot be ignored whilst considering factors contributing to success. Studies like (Bae et al., 2014; Kim et al., 2018; Santoro et al., 2020) examined that the critical factor which influences ES and helps them to tackle various risk and investment factors can be gained through EE.

2.3. Entrepreneurial self-efficacy, entrepreneurial success and gender

After going through conceptual background of ESE and ES, it becomes crucial to examine the theoretical framework, by relating these two constructs and also to conduct a gender-wise analysis for examining any diversity in the perception of males and females, regarding ESE and its impact on ES. Previous literature exhibited pluralistic perception regarding the association of gender in relation to ESE, and ES, with women's choice of entrepreneurship as a career being lower in comparison to males (Chowdhury et al., 2019; Oosterbeek et al., 2008). Males and females differ in preferring entrepreneurship as a career choice due to differences in aspiration levels (Scherer et al., 1990) along with prevailing cultural and social constraints (Bem, 1974), which further affect the success of a venture. High ESE of the male is considered responsible for their choice of entrepreneurship (Bae et al., 2014; Elnadi & Gheith, 2021).

Wilson et al. (2007) highlighted that gender variances in ESE exist at initial level and Koellinger et al. (2008) considered that females were more uncertain about whether they had the requisite skills to achieve a specified task. With the prevailing social norms men were found to be more suitable for becoming entrepreneurs, as they were more energetic and enjoyed additional freedom to work outside their

homes. Women were regarded as more distressed while operating in teams (Eagly & Steffen, 2000). Arshad et al. (2016) concluded that ESE had a larger effect on the entrepreneurial attitudes of males whereas in case of women attitude for entrepreneurship is driven by social norms and policies. A current research by Arshad et al. (2021) highlighted that attitudes of women in entrepreneurship were primarily driven by community feelings and aspirations. So from the existing literature it can be inferred that females displayed lack of intentions in case of adopting entrepreneurship as against the other gender (Santos et al., 2016; Wilson et al., 2007), and they too lagged behind them in ESE (Wilson et al., 2007).

By expanding the scope, many studies considered gender role aspects (i.e., masculine or feminine). Drydakakis et al. (2018) examined that females exhibiting masculine personality traits have greater ESE as against the females with feminine traits. Identified gender's role and its influence on ESE of students and highlighted no significant difference among them in terms of ESE. The researchers attributed the difference in terms of success to factors like gender role (masculine or feminine) features.

ES relies on external financial and technological support and contacts with societal linkages. Wong (1988) attributed the achievement of entrepreneurs in Hong Kong, China to familism in business and territorial background that allowed entrepreneurs to come closer to each other through mentoring. Regarded importance of SE in the use of decision-making by entrepreneurs. Hmieleski and Corbett (2008) established that SE performs a moderating role in influencing entrepreneurial ventures' growth and performance, while Dessyana and Riyanti. (2017) established that ESE played a vital role in success of the enterprise. Drnovšek et al. (2010) recommended ESE as a multi-dimensional construct that plays a vibrant role in business growth. All the intended startups must be controlled through high positive control efficacy and high negative control efficacy for successful creation of the venture. Srimulyani and Hermanto (2021) opined that ESE had a significantly affirmative influence on the success of the business firms or micro firms and entrepreneurial motivation played a mediating role between SE and success of the firms. Various studies depicted an association between ESE and intentions of the academic students (Darmanto & Yuliani, 2018; McGee et al., 2009; Pihie, 2009; Wilson et al., 2007), but there are few studies, that relate ESE as an indicator of ES. Thus, from the above literature, it can be established that though there are studies on ESE and ES, they are carried in terms of constructs, but relatively scarce studies that relate only ESE and ES (Chowdhury et al., 2020; Elnadi et al., 2020). Also, there are limited studies that examine ESE from a gender-wise perspective. Prior investigation has revealed overperformance of males in terms of ESE (Wilson et al., 2009). Relate it with less entrepreneurial experience; researchers like (Zhao et al., 2005) report no difference amongst both the genders in case of ESE. In view of these divergent outcomes concerning the effect of gender on ESE, there needs to be more in depth analysis regarding analysing ESE gender-wise. Thus, the related hypothesis is:

Hypothesis1: There is a significant difference in the perceptions of males and females regarding the five sub-constructs of ESE.

It also needs to be examined how ESE influences ES. Some researchers reveal a optimistic association between the ESE and venture performance (e.g., Hallak et al., 2015;

McGee & Peterson, 2019). However, the majority of studies use financial or tangible factors only.

The related hypotheses and sub-hypotheses are:

Hypothesis 2: Entrepreneurial self-efficacy (ESE) influences Entrepreneurial success based on perception of the students of HEIs.

The searching phase consists of idea generation and/or recognizing opportunity by the entrepreneur before it is recognized by others (Campo, 2011), ($\alpha = 0.65$).

Hypothesis 2a: ESE-Searching influences Entrepreneurial success based on perception of the students of HEIs.

In Planning, the entrepreneur tries to convert the idea into a feasible plan developed in first stage ($\alpha = 0.783$)

Hypothesis 2b: ESE-Planning influences Entrepreneurial success based on perception of the students of HEIs.

In the next step of Marshalling, the entrepreneur is involved in gathering various resources needed to make business possible like capital, labor, and others. ($\alpha = 0.715$).

Hypothesis 2c: ESE-Marshalling influences Entrepreneurial success based on perception of the students of HEIs.

Implementing people is also an essential element of ESE, as the entrepreneur acts as a leader and divides the work according to one's capabilities ($\alpha = 0.830$).

Hypothesis 2d: ESE-Implementing people influences Entrepreneurial success based on perception of the students of HEIs.

At this phase of Implementing Finance, the entrepreneur, with his creative management skill, manages all the Finance needed for the organization's growth ($\alpha = 0.812$).

Hypothesis 2e: ESE-Implementing finance influences Entrepreneurial success based on perception of the students of HEIs.

3. Research methodology

3.1. Research design

This research used a quantitative survey technique for gathering data from the students enrolled in entrepreneurship courses from higher educational institutions (HEIs), with rank <100, situated in Punjab, Haryana, and National Capital Region NCR from North India (composed of 19 districts from 4 states). All these regions are growing in terms of start-ups; however, NCR emerged as start-up hub by adding more than five thousand start-ups during the year 2019–2022. For this survey, we have considered National Institutional Ranking Framework (NIRF) to select higher educational institutions (HEIs), functioning since 29th September 2015, duly recognized, Government of India (GOI). The learners include those enrolled in an entrepreneurship course/program at graduate (bachelors) or Post-graduate (Masters) level.

The next stage was to identify the universities included in the population offering entrepreneurial programs/courses to students. Finally, we settled with five public/state and

five private universities from where the sample was collected. So, a total of 10 universities were selected for data collection. We distributed fifty questionnaires in every institute (students undertaking entrepreneurial programs/courses) using convenient sampling. So, out of 500 questionnaires, with a response rate of 64.6%, i.e., 323 questionnaires were registered (learners possessing high EI). Out of the total sample collected, 195 were males, and 128 were females. As a target group included students being enrolled in entrepreneurial programs, convenient sampling was employed, as has earlier been supported by (Wilson et al., 2007) due to the challenging nature of the entrepreneurial area studies. The present research examines the influence of ESE on ES, as studies like (Chen et al., 1998; Forbes, 2005) stated ESE as a precondition for potential entrepreneurs.

3.2. Tools for data collection

The data were collected through a Questionnaire. The questionnaire was devised considering Indian culture in HEIs. Initially pilot survey was conducted on 100 students (50 each from state and private HEIs). The reliability and validation confirmed that the scale was well suited (in terms of questions and language). Both online and offline modes were used to get the Questionnaire filled. This survey was administered in the year 2021–2022, from the month October-2021 to January-2022 to collect and sort the data. Due to Covid-19 guidelines and lockdown in specific areas online mode of sending a questionnaire was preferred to be a good source of data collection. The study used 5-point Likert scale, ranging from “strongly disagree” to “strongly agree.” The questionnaire used for measuring ESE was adopted from McGee et al. (2009). The 19-item scale used was suitable for checking the ESE of the students, and most importantly, the McGee et al. (2009) study scale holds a Cronbach alpha of more than (0.80). Items of the scale include *Searching: How much confidence do you have in brainstorming (coming-up with) a new idea for a product or service. Planning: How much confidence do you have? Estimating customers’ demand for a new product or service. Marshalling: Confidence in? Getting others to identify with and believe in my vision and plans for a new business. Imp-people: Confidence in? Supervising people. Imp-finance: Confidence in? Organizing and preserving the financial records of business.* For measuring the present study’s dependent variable, i.e., “Entrepreneurial success,” 7 items scale has been adopted from the study of Liñán et al. (2008), i.e., *Competing hard in the world market, Keeping a path of positive growth and others* and one item is self-structured, i.e., *Satisfying employee.* This (ES) scale contain total 8 items out of which first five items denote economic success (perception) and last three as social success (perception). Cronbach alpha for the Liñán et al. (2008) scale of entrepreneurial success was more than satisfactory (0.80) (Demographic profile has been provided in [Appendix A](#) and questionnaire is added to [Appendix B](#)).

4. Results

First of all, it was essential to calculate the reliability of the survey tool, i.e., [Table 1](#) shows Cronbach Alpha of the scale and sub-scales. Cronbach Alpha for ESE scale was 0.92 and for sub-scales, it was: Searching – 0.65 (contains 3 items), Planning – 0.783, Marshalling – 0.715, Imp-people – 0.83, and Imp-finance – 0.812. ES exhibited Cronbach Alpha of 0.71.

Table 1. Scale reliability.

<i>Constructs</i>	<i>Reliability: Cronbach alpha</i>
1.ESE – Searching	0.650
2. ESE – Planning	0.783
3.ESE – Marshalling	0.715
4. ESE – Implementing people (IMP)	0.830
5. ESE – Implementing finance (IMF)	0.812
Ent – self-efficacy (overall)	0.92
Ent – success	0.71

Source: Self complied by the author.

Table 2. Gender wise demographic profile.

Gender		ESE1	ESE2	ESE3	ESE4	ESE5
1.0 (Male)	Mean	4.04	3.95	3.91	3.97	4.03
	N	195	195	195	195	195
	Std. Deviation	655	727	740	664	785
2.0 (Female)	Mean	4.15	3.98	4.05	4.13	4.06
	N	129	129	129	129	129
	Std. Deviation	579	655	648	592	804
Total	Mean	4.08	3.97	3.96	4.03	4.04
	N	324	324	324	324	324
	Std. Deviation	627	698	708	641	792

Source: Self-compiled by the author.

After going through reliability, it was essential to examine the demographic profile. Gender-wise differences in ESE are depicted through [Table 2](#). The outcomes highlight that the mean was highest for males for ESE1-Searching, next in priority was ESE 5 – Implementing Finance. For females mean score was highest for ESE1-searching, followed by ESE4-implementing people. Thus, there is some difference in perception of males and females regarding ESE, as males scored more in ESE-4 people.

For gender-wise ANOVA was also applied to examine the similarity/difference perceptions of sub-constructs of ESE. As this is evident from the results of ANOVA depicted in [Table 3](#), highlighting that there is a similarity of perception among males and females regarding four sub-constructs, i.e., searching, planning, marshalling; and implementing Finance. The only difference in perception is visible with regard to implementing people. Out of five sub-constructs (gender-wise), four are insignificant. Hence the H_1 is not accepted.

The current study used the regression model, as shown in [Table 4](#), to examine whether ESE significantly influenced ES. It was found that three out of five sub-constructs are significant, and thus, they indicate ES. β values were significant for Planning (0.327), Imp-people (0.193) and Imp-finance (0.123).

Thus, it can be inferred if the sample consists of a male & female population and the sample is drawn from the students enrolled in entrepreneurial programs, the results don't indicate a difference in perceptions of males & females regarding ESE sub-constructs dimensions.

The highest beta value is for planning, indicating ESE-planning is strongly related to ES. Thus, hypothesis-2^b ([Figure 1](#)) that ESE-planning influences ES has been accepted. Hence, it can be inferred ([Figure 2](#)) that ESE-planning is strongly influencing ES ($p \leq 0.001$). The next significant predictor of ESE was implementing the people p value, which was a significant at 1% considerable level ($p \leq 0.01$). Hence Hypothesis 2d: ESE-

Table 3. Gender-wise ANOVA.

Factors of ESE		Sum of squares	df	Mean square	F	Sig.
ESE1: Searching	Between Groups	.963	1	.963	2.461	.118
	Within Groups	126.061	322	.391		
	Total	127.025	323			
ESE2: Planning	Between Groups	.073	1	.073	.149	.699
	Within Groups	157.304	322	.489		
	Total	157.377	323			
ESE3: Marshalling	Between Groups	1.552	1	1.552	3.121	.078
	Within Groups	160.139	322	.497		
	Total	161.691	323			
ESE4: Implementing people	Between Groups	2.128	1	2.128	5.253	.023*
	Within Groups	130.427	322	.405		
	Total	132.554	323			
ESE5: Implementing Finance	Between Groups	.076	1	.076	.121	.729
	Within Groups	202.430	322	.629		
	Total	202.506	323			

* $p \leq 0.05$; Source: Self-compiled by the author.

Table 4. Regression coefficients for ESE.

Model	Unstandardized coefficients		Standardized coefficients		Sig.
	β	Std. error	β	t	
ESE2: Planning	.226	.044	.327	5.176	.000***
ESE4: Implementing people	.146	.047	.193	3.085	.002**
ESE5: Implementing Finance	.075	.038	.123	1.999	.046*
a. Dependent Variable: Ent Success					
b. Predictors: (Constant), ESE2plan, ESE4people, ESE5finan					

*** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$.

Source: Self-compiled by the author.

implementing people influences ES has also been accepted. Implementing finance was the next one to emerge as a significant predictor of ES ($p \leq 0.05$). Hypothesis 2e: ESE-implementing finance is an indicator of ES and has also been accepted. However, ESE-Searching & ESE-marshalling were not selected in the model. Searching may be the initial stage, but further research may be needed to cover this perspective.

ANOVA results for regression have been shown in Table 5. The outcomes suggest that overall model is significant and hence acceptable as F is 48.510 and $p \leq .001$. ANOVA results highlight that the overall model is significant. Model 3 with three predictors is the final model selected.

The results of the adjusted R-Square are shown in Table 6. As stepwise regression was applied, results highlight that the explanatory variation increased from 2.9% with planning to 30.4% with planning and implementing people to 31.3% with planning, implementing people, and implementing Finance. All these three predictors explained 31.3 of variation in ES. Durbin-Watson's test of auto-correlation was 1.583, suggesting no autocorrelation.

It can be seen from Table 7 that mean values for male and female students of social success were more than that of economic success. This can be inferred that both male and female students perceive entrepreneurial success more from a social perspective. Further mean and standard deviation with respect to ES linked to gender can be observed in Table 8. In order to assess both male and female students' potential socioeconomic

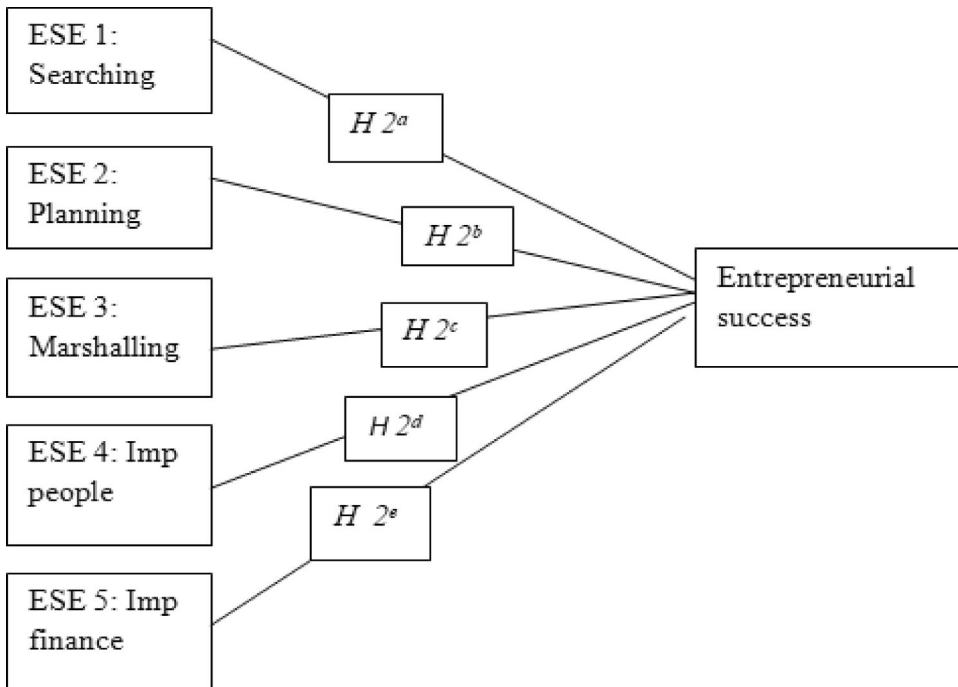


Figure 1. Conceptual framework model depicting relationship between entrepreneurial self-efficacy and entrepreneurial success. Source: Self complied by the author.

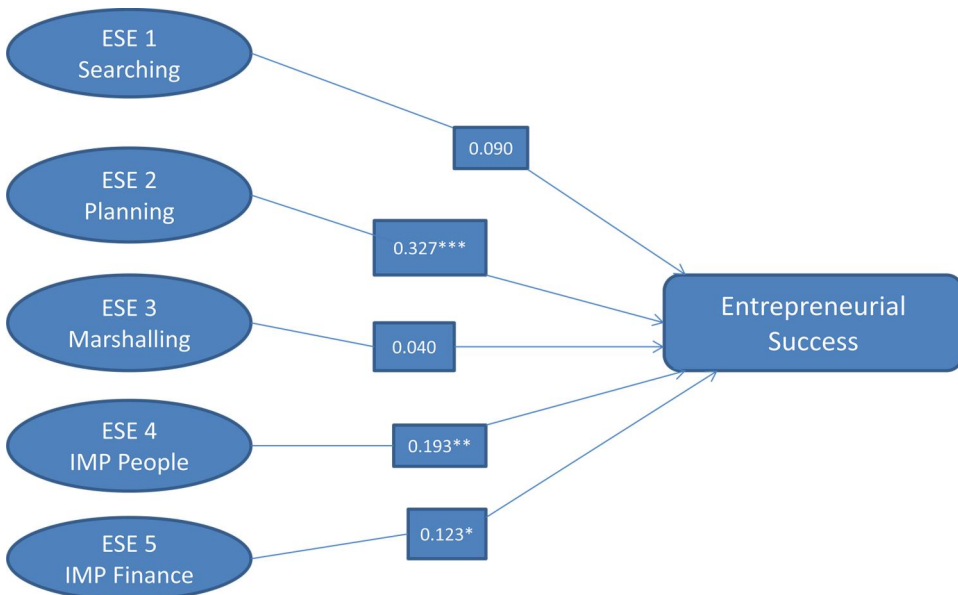


Figure 2. Statistical model depicting relationship between entrepreneurial self-efficacy's sub-constructs and entrepreneurial success. Source: Self complied by the author.

Table 5. ANOVA results.

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	20.306	1	20.306	118.42 9	.000 ^b
	Residual	55.211	322	.171		
	Total	75.517	323			
2	Regression	22.959	2	11.480	70.112	.000 ^c
	Residual	52.558	321	.164		
	Total	75.517	323			
3	Regression	23.607	3	7.869	48.510	.000 ^d
	Residual	51.909	320	.162		
	Total	75.517	323			

a. Dependent Variable: Ent Success

b. Predictors: (Constant), ESE2plan

c. Predictors: (Constant), ESE2plan, ESE4people

d. Predictors: (Constant), ESE2plan, ESE4people, ESE5finan

Source: Self-complied by author.

Table 6. R square, adjusted R square and DW test.

Model summary ^d					
Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin-Watson
1	.519 ^a	.269	.267	.414	
2	.551 ^b	.304	.300	.404	
3	.559 ^c	.313	.306	.402	1.583

a. Predictors: (Constant), ESE2plan

b. Predictors: (Constant), ESE2plan, ESE4people

c. Predictors: (Constant), ESE2plan, ESE4people, ESE5finan

d. Dependent Variable: Ent Success

Source: Self complied by the author.

Table 7. Gender wise results for economic and social success (perception).

Gender	Economic success (first 5 items of ES)		Social success (last three items of ES)	
	Mean	N	Mean	N
Males	Mean	4.1128	4.3128	
	N	195	195	
	Std. Deviation	.59203	.56190	
Females	Mean	4.2093	4.3488	
	N	129	129	
	Std. Deviation	.56726	.59783	
Total	Mean	4.1512	4.3272	
	N	324	324	
	Std. Deviation	.58333	.57583	

Source: Self-complied by the author (s).

Table 8. Mean and standard deviation (ES).

Gender	ES1	ES2	ES3	ES4	ES5	ES6	ES7	ES8
Mean	3.9385	3.9538	4.2564	4.2410	4.1744	4.1897	4.3897	4.3590
N	195	195	195	195	195	195	195	195
Std. Deviation	1.05826	1.08072	.86507	.89001	.80614	.77983	.74743	.80229
Mean	4.0233	4.0465	4.3798	4.2481	4.3488	4.2481	4.3643	4.4341
N	129	129	129	129	129	129	129	129
Std. Deviation	1.03430	1.01443	.70924	.89295	.74636	.76066	.78000	.77907
Mean	3.9722	3.9907	4.3056	4.2438	4.2438	4.2130	4.3796	4.3889
N	324	324	324	324	324	324	324	324
Std. Deviation	1.04800	1.05421	.80776	.88981	.78637	.77160	.75947	.79277

Source: Self complied by the author.

Table 9. ANOVA.

		Sum of squares	df	Mean square	F	Sig.
Economic success	Between groups	.723	1	.723	2.131	.145
	Within groups	109.187	322	.339		
	Total	109.910	323			
Social success	Between groups	.101	1	.101	.303	.582
	Within groups	106.998	322	.332		
	Total	107.099	323			

Source: Self compiled by the author.

contribution, gender wise ANOVA was performed. Table 9 in Appendix B shows that, from both an economic and social perception standpoint, the outcome was inconsequential. This suggests that both male and female students perceive economic and social success similarly. In order to determine the relative importance of each gender, economic and social success mean values for each gender were determined individually.

5. Discussion & implications

The results that emerged from the study suggest that Planning, Implementing people, and Implementing Finance of ESE are essential indicators of ES; out of these, “Planning” plays a vital one. Resource-based View (RBV) has highlighted the role of ‘People’ and considered entrepreneur as a unique element of business. The entrepreneur makes the actual difference and is responsible for the success of the entrepreneurial firms. But as per ‘Organisation Adaption theory’, the organisation’s success also depends upon the capability of the firm/organization to grab productive knowledge to make proper use of available resources, especially Finance. Karlsson and Moberg (2013) opined that ESE influences the abilities of entrepreneurial firms to locate and utilize the resources for successful entrepreneurial activity. The outcomes advocate a need to focus on searching and marshalling as they are not emerging as significant factors in the regression model. This indicates that there is ample opportunity for further study in this area.

Zhao et al. (2005) showed that high ESE of males positively influenced the entrepreneurial intentions, as compared to high ESE of females. Research carried out by Campo (2011) in Columbia found no such difference in ESE (sub-constructs) among males and females with regard to an increase in the intentions. The present study was carried out in India, and findings highlight a difference in both the genders, with respect to “Implementing People.” This can be due to the difference in the cultural aspects prevailing in these countries (Bagheri & Pihie, 2014).

Earlier studies like that of examined the effect of EE in increasing EI of university students. This study showed that the above relation is only possible, when universities concentrate upon the three sub-constructs of ESE: searching, marshalling, and planning. Existing literature also suggests that self-efficacy drives behavior (Bandura, 2012; Chen & Zhou, 2017), as well as self-efficacy is responsible factors influencing the successful entrepreneurial career of the students (Bagheri & Pihie, 2014; Sharma & Sarmah, 2020; Zhao et al., 2005). The present study bears testimony to the fact that due attention to entrepreneurial success needs to be given to ESE planning. Moreover, integrating resources has been highlighted as leading to innovativeness by Stephens et al. (2013).

As the entrepreneurship process is very complex and riskier, there is a need for ESE, especially in implementing resources like people. The findings of this research help to reiterate that ESE has a beneficial effect on entrepreneurship.

5.1. Implications

5.1.1. Practical implications

Many earlier studies have focused and have suggested role of ESE on EI (McGee et al., 2009; Mcgee & Peterson, 2019; Yeh et al., 2021). The current research has been carried to examine relation between ESE and ES covering all the dimensions of ESE. Further the study has examined the dimensions from gender perspective. This multi-dimensionality aspect of ESE has been suggested by McGee et al. (2009), and the researchers have recommended that polices should framed considering the successive nature of entrepreneurship. The current study endorses focus on all sub-dimensions, suggesting that govts. of different nations should must consider the sequential nature of dimensions awhile framing policies to promote entrepreneurship. A suitable framework considering these dimensions and ecosystem can help to promote entrepreneurial culture amongst students in HEIs. This will help learners with high ESE to shape their actual behavior towards starting a venture. In view of study by Bae et al. (2014), this study can be taken to suggest teaching entrepreneurship at pre-university level too. As according to Yeh et al. (2021) high ESE and EI is the result of entrepreneurial learning (EL) (Cope, 2003). Further, Padilla-Angulo et al. (2021) highlighted that institutions must help in developing a positive EA & ESE among students. As EA & ESE are lower in females, this study suggests that gender perspective must be considered while designing activities to promote entrepreneurship.

5.1.2. Research implications

The present research article adds to the knowledge of EL in diverse ways. First, this study highlights ESE as a predictor of ES. Earlier literature like suggested that ESE helped to form EI. Yeh et al. (2021) investigated the effects of Internet ESE while relating EE with performance. The current research has contributed and suggested considering ESE as a predictor of ES. This study has considered the multi-dimensionality aspect very important as indicated by McGee's (2009). This multi-dimensionality has to be in relation to gender perspective. Thereby, this study is important die to its contribution to Ajzen's (1991) TPB framework, which stated that perceived behavioral control (conceptually equal to self-efficacy) influences the actual behavior of the individuals through intentions. A comprehensive insight is required in context of how ESE can lead to actual behavior of both the genders. Moreover, use of refined ESE scale of McGee et al. (2009) would be more suitable for studies related to entrepreneurship from gendered perspective.

6. Conclusion

The present research contributes to understand the role played by Entrepreneurial self-efficacy in Entrepreneurial success. The results reflect that ESE actually impacts the ES, as three out of five sub-scales of ESE were found to be significant. Thus *Hypothesis2* “*Entrepreneurial self-efficacy (ESE) influences Entrepreneurial success*” has been accepted.

In case of gender-wise analysis out of five sub-constructs four were insignificant, so *Hypothesis1 “There is a significant difference in the perceptions of males and females regarding five sub-constructs of ESE” has not been empirically supported.*

The current study is based on the perception of students actually registered in entrepreneurship programs. The perceptions-based study could provide as a theoretical foundation for future research because the relationship (ESE & ES) is yet not fully explored. The relation derived between ESE and ES states to focus on the strengths of ESE, i.e., concentrate on Planning; Implementing people, and Implementing Finance. However, it also highlights how we need to pay due attention to weak areas of ESE, i.e., Searching and Marshalling. We have used ESE scale of McGee for the present study, and the extant literature states that most researchers have used it. There are few studies that have used different scales for the same. So, it can be suggested that a comparison can be drawn, with studies focusing on comparative scales used in other developing economies.

7. Limitation and future scope

Despite our effort to carry out a comprehensive study, it is generally true that a single study may have to support by other similar studies. Moreover, this study is based on a sample drawn from India, a wider sample or a cross country sample may be taken for future studies. Thirdly, other variables like attitude, family support, and environment may also be included in future studies. Fourth, the study examined ES to investigate the perception (actual behavior) of the students; in the upcoming research, studies should consider actual entrepreneurs for validation of the questionnaire.

Future studies could be undertaken by considering gender and education as control variables to add more depth to this research. Also in future the relationship can be examined by taking entrepreneurial education or its subset, i.e., experiential learning (Taneja et al., 2022).

Disclosure statement

No potential conflict of interest reported by the authors.

ORCID

Mohit Taneja  <http://orcid.org/0000-0002-7984-8754>

Ravi Kiran  <http://orcid.org/0000-0003-2434-9103>

S.C. Bose  <http://orcid.org/0000-0001-7678-6685>

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Arshad, M., Farooq, M., Atif, M., & Farooq, O. (2021). A motivational theory perspective on entrepreneurial intentions: A gender comparative study. *Gender in Management: An International Journal*, 36(2), 221–240.

- Arshad, M., Farooq, O., Sultana, N., & Farooq, M. (2016). Determinants of individuals' entrepreneurial intentions: A gender-comparative study. *Career Development International*, 21(4), 318–339. <https://doi.org/10.1108/CDI-10-2015-0135>
- Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2), 217–254. <https://doi.org/10.1111/etap.12095>
- Bagheri, A., & Lope Pihie, Z. A. (2014). The moderating role of gender in shaping entrepreneurial intentions: Implications for vocational guidance. *International Journal for Educational and Vocational Guidance*, 14(3), 255–273. <https://doi.org/10.1007/s10775-014-9269-z>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037//0033-295x.84.2.191>
- Bandura, A. (1984). Recycling misconceptions of perceived self-efficacy. *Cognitive Therapy and Research*, 8(3), 231–255. <https://doi.org/10.1007/BF01172995>
- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2(2), 128–163. <https://doi.org/10.1080/10413209008406426>
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9–44. <https://doi.org/10.1177/0149206311410606>
- Barz, M., Lange, D., Parschau, L., Lonsdale, C., Knoll, N., & Schwarzer, R. (2016). Self-efficacy, planning, and preparatory behaviours as joint predictors of physical activity: A conditional process analysis. *Psychology & Health*, 31(1), 65–78. <https://doi.org/10.1080/08870446.2015.1070157>
- Bello, A., Jibir, A., & Ahmed, I. (2018). Impact of small and medium scale enterprises on economic growth: Evidence from Nigeria. *Global Journal of Economic and Business*, 427(5917), 1–9.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155–162. <https://doi.org/10.1037/h0036215>
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, 13(3), 442–453. <https://doi.org/10.2307/258091>
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4), 63–77. <https://doi.org/10.1177/104225879401800404>
- Campo, J. L. M. (2011). Analysis of the influence of self-efficacy on entrepreneurial intentions. *Prospectiva*, 9(2), 14–21.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295–316. [https://doi.org/10.1016/S0883-9026\(97\)00029-3](https://doi.org/10.1016/S0883-9026(97)00029-3)
- Chen, Y., & Zhou, X. (2017). Entrepreneurial self-efficacy and firms' innovation behavior: The negative mediating role of social capital. *Social Behavior and Personality: An International Journal*, 45(9), 1553–1562. <https://doi.org/10.2224/sbp.6734>
- Chowdhury, N. A., Ali, S. M., Paul, S. K., Mahtab, Z., & Kabir, G. (2020). A hierarchical model for critical success factors in apparel supply chain. *Business Process Management Journal*, 26(7), 1761–1788.
- Chowdhury, S., Endres, M. L., & Frye, C. (2019). The influence of knowledge, experience, and education on gender disparity in entrepreneurial self-efficacy. *Journal of Small Business & Entrepreneurship*, 31(5), 371–389. <https://doi.org/10.1080/08276331.2018.1517474>
- Cope, J. (2003). Entrepreneurial learning and critical reflection: Discontinuous events as triggers for 'higher-level' learning. *Management Learning*, 34(4), 429–450. <https://doi.org/10.1177/1350507603039067>
- Darmanto, S., & Yuliani, G. (2018). Mediating role of entrepreneurial self efficacy in developing entrepreneurial behavior of entrepreneur students. *Academy of Entrepreneurship Journal*, 24(1), 1–14.
- Dessyana, A., & Riyanti, B. P. D., Magister Profesi Psikologi Universitas Katolik Indonesia Atma Jaya, Jl. Jendral Sudirman, Jakarta 12930, Indonesia. (2017). The influence of innovation and entrepreneurial self-efficacy to digital startup success. *International Research Journal of Business Studies*, 10(1), 57–68. <https://doi.org/10.21632/irjbs.10.1.57-68>

- Drnovšek, M., Wincent, J., & Cardon, M. S. (2010). Entrepreneurial self-efficacy and business startup: Developing a multi-dimensional definition. *International Journal of Entrepreneurial Behavior & Research*, 16(4), 329–348. <https://doi.org/10.1108/13552551011054516>
- Drydakis, N., Sidiropoulou, K., Bozani, V., Selmanovic, S., & Patnaik, S. (2018). Masculine vs feminine personality traits and women's employment outcomes in Britain: A field experiment. *International Journal of Manpower*, 39(4), 621–630. <https://doi.org/10.1108/IJM-09-2017-0255>
- Eagly, A. H., & Steffen, V. J. (2000). Gender stereotypes stem from the distribution of women and men into social roles.
- Elnadi, M., & Gheith, M. H. (2021). Entrepreneurial ecosystem, entrepreneurial self-efficacy, and entrepreneurial intention in higher education: Evidence from Saudi Arabia. *International Journal of Management Education*, 19(1), 100458. <https://doi.org/10.1016/j.ijme.2021.100458>
- Elnadi, M., Gheith, M. H., & Farag, T. (2020). How does the perception of entrepreneurial ecosystem affect entrepreneurial intention among university students in Saudi Arabia? *International Journal of Entrepreneurship*, 24(3), 1–15.
- Forbes, D. P. (2005). The effects of strategic decision making on entrepreneurial self-efficacy. *Entrepreneurship theory and practice*, 29(5), 599–626.
- Halberstadt, J., Niemand, T., Kraus, S., Rexhepi, G., Jones, P., & Kailer, N. (2021). Social entrepreneurship orientation: Drivers of success for start-ups and established industrial firms. *Industrial Marketing Management*, 94, 137–149. <https://doi.org/10.1016/j.indmarman.2020.06.012>
- Hallak, R., Assaker, G., & Lee, C. (2015). Tourism entrepreneurship performance: The effects of place identity, self-efficacy, and gender. *Journal of Travel Research*, 54(1), 36–51.
- Hmieleski, K. M., & Corbett, A. C. (2008). The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction. *Journal of Business Venturing*, 23(4), 482–496. <https://doi.org/10.1016/j.jbusvent.2007.04.002>
- Hockerts, K. (2018). The effect of experiential social entrepreneurship education on intention formation in students. *Journal of Social Entrepreneurship*, 9(3), 234–256. <https://doi.org/10.1080/19420676.2018.1498377>
- Hopp, C., & Stephan, U. (2012). The influence of socio-cultural environments on the performance of nascent entrepreneurs: Community culture, motivation, self-efficacy and start-up success. *Entrepreneurship & Regional Development*, 24(9–10), 917–945. <https://doi.org/10.1080/08985626.2012.742326>
- Kariv, D. (2008). The relationship between stress and business performance among men and women entrepreneurs. *Journal of Small Business & Entrepreneurship*, 21(4), 449–476.
- Karlsson, T., & Moberg, K. (2013). Improving perceived entrepreneurial abilities through education: Exploratory testing of an entrepreneurial self efficacy scale in a pre-post setting. *The International Journal of Management Education*, 11(1), 1–11. <https://doi.org/10.1016/j.ijme.2012.10.001>
- Kim, B., Kim, H., & Jeon, Y. (2018). Critical success factors of a design startup business. *Sustainability (Switzerland)*, 10(9), 2981. <https://doi.org/10.3390/su10092981>
- Koellinger, P. (2008). Why are some entrepreneurs more innovative than others? *Small Business Economics*, 31(1), 21–37. <https://doi.org/10.1007/s11187-008-9107-0>
- Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a systematic literature review in entrepreneurship research. *International Entrepreneurship and Management Journal*, 16(3), 1023–1042. <https://doi.org/10.1007/s11365-020-00635-4>
- Kraus, S., Palme, C., Kailer, N., Kallinger, F. L., & I Spitzer, J. (2018). Digital entrepreneurship: A research agenda on new business models for the twenty-first century. *International Journal of Entrepreneurial Behavior & Research*, 25(2), 353–375. <https://doi.org/10.1108/IJEBR-06-2018-0425>
- Kumar, M. A., & Asthana, S. (2022). Exploring the reasons of failure of startups in India: An exploratory analysis. *Reimagining Global Marketing: Innovations Focused on the Digitalized World*, 48.

- Liñán, F., Battistelli, A., & Moriano, J. A. (2008). Entrepreneurial intentions in Europe. In Moriano, J.A., Gorgievski, M. & Lukes, M. (Eds.), *Teaching Psychology of Entrepreneurship* (pp. 21–43). UNED.
- Liñán, F., Rodríguez-Cohard, J. C., & Rueda-Cantuche, J. M. (2011). Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7(2), 195–218. <https://doi.org/10.1016/j.ijme.2021.100565>
- Link, A. N., & Link, J. R. (2009). *Government as entrepreneur*. Oxford University Press.
- Mahanty, A. (2022). Entrepreneurial behaviour and socio-economic analysis of rural women in Purulia District, West Bengal
- Markman, G. D., Balkin, D. B., & Baron, R. A. (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship theory and practice*, 27(2), 149–165.
- McClelland, D. C. (1961). *The achieving society*. Van Norstrand Co.
- McGee, J. E., & Peterson, M. (2019). The long-term impact of entrepreneurial self-efficacy and entrepreneurial orientation on venture performance. *Journal of Small Business Management*, 57(3), 720–737. <https://doi.org/10.1111/jsbm.12324>
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship Theory and Practice*, 33(4), 965–988. <https://doi.org/10.1111/j.1540-6520.2009.00304.x>
- Memon, M. A., Cheah, J. H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). Moderation analysis: Issues and guidelines. *Journal of Applied Structural Equation Modeling*, 3(1), i–xi. [https://doi.org/10.47263/JASEM.3\(1\)01](https://doi.org/10.47263/JASEM.3(1)01)
- Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeplédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 44(2), 361–379. <https://doi.org/10.1080/03075079.2017.1365359>
- Obialo, F. K. (2019). Contributions to an emerging culture of entrepreneurship. *Journal of Economics, Management and Trade*, 24(5), 1–12. <https://doi.org/10.9734/jemt/2019/v24i530176>
- Onuoha, G. (2007). Entrepreneurship. *AIST International Journal*, 10, 20–32.
- Oosterbeek, H., van Praag, M., & IJsselstein, A. (2008). The impact of entrepreneurship education on entrepreneurship competencies and intentions (No. 08-038/3). Tinbergen Institute Discussion Paper.
- Padilla-Angulo, L., García-Cabrera, A. M., & Lucia-Casademunt, A. M. (2021). Unpacking entrepreneurial education: Learning activities, students' gender and attitude towards entrepreneurship. *Academy of Management Learning & Education*. *Academy of Management*, 21(4), 532–560.
- Palmer, C., Niemand, T., Stöckmann, C., Kraus, S., & Kailer, N. (2019). The interplay of entrepreneurial orientation and psychological traits in explaining firm performance. *Journal of Business Research*, 94, 183–194. <https://doi.org/10.1016/j.jbusres.2017.10.005>
- Pihie, Z. A. L., & Akmaliah, Z. (2009). Entrepreneurship as a career choice: An analysis of entrepreneurial self-efficacy and intention of university students. *European Journal of Social Sciences*, 9(2), 338–349.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353–385. <https://doi.org/10.1080/13594320701595438>
- Santoro, G., Ferraris, A., Del Giudice, M., & Schiavone, F. (2020). Self-efficacy and success of disadvantaged entrepreneurs: The moderating role of resilience. *European Management Review*, 17(3), 719–732. <https://doi.org/10.1111/emre.12394>
- Santos, F. J., Roomi, M. A., & Liñán, F. (2016). About gender differences and the social environment in the development of entrepreneurial intentions. *Journal of Small Business Management*, 54(1), 49–66.
- Say, J. B. (1836). *A treatise on political economy: Or the production, distribution, and consumption of wealth*. Grigg & Elliot.

- Scherer, F. M., & Ross, D. (1990). Industrial market structure and economic performance. *University of Illinois at Urbana-Champaign's, Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.
- Schumpeter, J. (1971). Historia del pensamiento económico. *Ariel, Barcelona*
- Sharma, P. B., & Sarmah, R. (2020). Perception and awareness of youth towards digital India campaign. *International Journal of Management (IJM)*, 11(6), 1381–1393.
- Snyder, C. R., Shorey, H. S., Cheavens, J., Pulvers, K. M., Adams, V. H., III., & Wiklund, C. (2002). Hope and academic success in college. *Journal of Educational Psychology*, 94(4), 820–826. <https://doi.org/10.1037/0022-0663.94.4.820>
- Srimulyani, V. A., & Hermanto, Y. B. (2021). Impact of entrepreneurial self-efficacy and entrepreneurial motivation on micro and small business success for food and beverage sector in East Java, Indonesia. *Economies*, 10(1), 10. <https://doi.org/10.3390/economies10010010>
- Staniewski, M., & Awruk, K. (2016). Start-up intentions of potential entrepreneurs – The contribution of hope to success. *Economic Research-Ekonomska Istraživanja*, 29(1), 233–249. <https://doi.org/10.1080/1331677X.2016.1166345>
- Stephens, H. M., Partridge, M. D., & Faggian, A. (2013). Innovation, entrepreneurship and economic growth in lagging regions. *Journal of Regional Science*, 53(5), 778–812. <https://doi.org/10.1111/jors.12019>
- Taneja, M., Kiran, R., & Bose, S. C. (2022). Critical analysis of Kolb experiential learning process: Gender perspective. *International Journal of Health Sciences*, 6(S1), 8713–8723. <https://doi.org/10.53730/ijhs.v6nS1.6962>
- Taneja, M., Kiran, R., & Bose, S. C. (2023). Understanding the relevance of experiential learning for entrepreneurial self-efficacy: A gender-wise perspective. *International Journal of Management Education*, 21(1), 100760. <https://doi.org/10.1016/j.ijme.2022.100760>
- Taneja, M., Kiran, R., & Bose, S. C. (2024). Assessing entrepreneurial intentions through experiential learning, entrepreneurial self-efficacy, and entrepreneurial attitude. *Studies in Higher Education*, 49(1), 98–118. <https://doi.org/10.1080/03075079.2023.2223219>
- Times of India. (2022). <https://timesofindia.indiatimes.com/city/delhi/capital-gains-how-delhi-turns-a-startup-hub/articleshow/89257491.cms>
- Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). The role of emotional intelligence and self-efficacy on social entrepreneurial attitudes and social entrepreneurial intentions. *Journal of Social Entrepreneurship*, 8(2), 165–185. <https://doi.org/10.1080/19420676.2017.1371628>
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, 31(3), 387–406. <https://doi.org/10.1111/j.1540-6520.2007.00179.x>
- Wilson, F., Kickul, J., Marlino, D., Barbosa, S. D., & Griffiths, M. D. (2009). An analysis of the role of gender and self-efficacy in developing female entrepreneurial interest and behavior. *Journal of Developmental Entrepreneurship*, 14(2), 105–119. <https://doi.org/10.1142/S1084946709001247>
- Wong, S.-L. (1988). *Emigrant Entrepreneurs: Shanghai Industrialists in Hong Kong*. Oxford University Press.
- Yeh, C. H., Lin, H. H., Wang, Y. M., Wang, Y. S., & Lo, C. W. (2021). Investigating the relationships between entrepreneurial education and self-efficacy and performance in the context of internet entrepreneurship. *The International Journal of Management Education*, 19(3), 100565. <https://doi.org/10.1016/j.ijme.2021.100565>
- Zhao, X., Oh, S. H., Yeater, K. M., & Hoyer, L. L. (2005). Analysis of the Candida albicans Als2p and Als4p adhesins suggests the potential for compensatory function within the Als family. *Microbiology (Reading, England)*, 151(Pt 5), 1619. <https://doi.org/10.1099/mic.0.27763-0>

Appendix A. Demographic profile of respondents

Participants	Frequency	Percentage
Gender		
• Male	195	59%
• Female	128	41%
Age of the respondent		
• 18–20	104	32%
• 21–23	188	58%
• >23	31	10%
Nature of institution		
• Public	150	46.4%
• Private	173	53.6%
Courses enrolled		
• Bachelors'	183	57%
• Masters'	140	43%
Stream		
• Engineering	169	52%
• Management/commerce	137	42.3%
• Other	17	5.2%
Total	323	100%

Appendix B. Questionnaire

1	Entrepreneurial self-efficacy scale by McGee et al. (2009)	1	2	3	4	5
	Searching: (How much confidence do you have in your ability to...?)					
	i. Brainstorm (come up with) a new idea for a product or service.					
	ii. Identify the need for a new product or service					
	iii. Design a product or service that will satisfy customer needs and wants	•	•	•	•	•
2	Planning: (How much confidence do you have in your ability to...?)	•	•	•	•	•
	i. Estimate customer demand for a new product or service	•	•	•	•	•
	ii. Determine a competitive price for a new product or service	•	•	•	•	•
	iii. Estimate the amount of startup funds and working capital necessary to start my business	•	•	•	•	•
	iv. Design an effective marketing/advertising campaign for a new product or service	•	•	•	•	•
3	Marshaling: (How much confidence do you have in your ability to...?)	•	•	•	•	•
	i. Get others to identify with and believe in my vision and plans for a new business	•	•	•	•	•
	ii. Network—i.e., make contact with and exchange information with others	•	•	•	•	•
	iii. Clearly and concisely explain verbally/in writing my business idea in everyday terms	•	•	•	•	•
4	Implementing-people: (How much confidence do you have in your ability to...?)	•	•	•	•	•
	i. Supervise employees	•	•	•	•	•
	ii. Recruit and hire employees	•	•	•	•	•
	iii. Delegate tasks and responsibilities to employees in my business	•	•	•	•	•
	iv. Deal effectively with day-to-day problems and crises	•	•	•	•	•
	v. I inspire, encourage, and motivate my employees	•	•	•	•	•
	vi. Train employees	•	•	•	•	•
5	Implementing-financials: (How much confidence do you have in your ability to...?)	•	•	•	•	•
	i. Organize and maintain the financial records of my business	•	•	•	•	•
	ii. Manage the financial assets of my business	•	•	•	•	•
	iii. Read and interpret financial statements	•	•	•	•	•

Table B1. Entrepreneurial Success Scale (Rate your perception of Entrepreneurial Success from 1–5).

	ES (Liñán et al., 2008)	1	2	3	4	5
1	Competing hard in world market (Economics success)					
2	Reaching in high level of income (Economic success)					
3	Carrying out the kind of job you really like (Economic success)					
4	Keeping the business alive (Economic success)					
5	Keeping a path of positive growth (Economic success)					
6	Achieving great social recognition (Social success)					
7	Satisfy employees (self-structured) (Social success)					
8	Helping to solve the problem of community (Social success)					