Discover Sustainability

Research

Fuelling entrepreneurial success: unravelling the nexus of financial resources, self-efficacy, outcome expectations and entrepreneurial intentions in Saudi micro and small enterprises

Ali Saleh Alshebami[1]

Received: 5 December 2023 / Accepted: 26 March 2024
Published online: 08 April 2024

Abstract
This paper focuses on understanding how financial resources (FR) influence entrepreneurial self-efficacy (ESE) and extrinsic outcome expectations (EOE). It also examines the influence of intrinsic outcome expectations (IOE) on ESE. This study further investigates the impact of ESE on entrepreneurial intention (EI) and EOE. At the same time, it examines how EOE influences EI among micro and small entrepreneurs in Saudi Arabia. The study also analyses the ability of ESE and EOE to mediate in the different relationships of the study. The author collected a sample of 201 micro and small entrepreneurs operating in various locations in Saudi Arabia through a self-administered online questionnaire. The data analysis was executed using partial least squares-structural equation modelling. The study's findings reported exciting results, indicating the presence of a positive and significant relationship between FR and ESE, as well as EOE. They also revealed the presence of a positive relationship between IOE and ESE. ESE also showed the ability to positively and significantly influence EI and EOE. Furthermore, the relationship between EOE and EI reported unexpected negative results. Concerning the mediation result, ESE proved to mediate the relationship between FR and EI, as well as that between IOE and EI. Finally, EOE was unable to mediate the relationship between FR and EI. This study provides specific recommendations and implications for policymakers to benefit from its outcomes.

Keywords Motivations · Expectations · Micro and small entrepreneurs · Saudi Arabia · Intention

1 Introduction

Entrepreneurship and micro, small and medium enterprises (MSMEs) play a critical role in creating new job opportunities, mitigating poverty, empowering individuals, encouraging innovation, maximising wealth and promoting socio-economic development, especially in developing countries [1–4]. Accordingly, governments have taken various initiatives to enhance the operations of MSMEs and entrepreneurship activities to achieve maximum benefits out of them [1]. The best way to encourage entrepreneurship and the MSME sector is to provide an entrepreneurial ecosystem that provides the essential backup and support for entrepreneurs to start their businesses. In other words, it is crucial to focus on the so-called institutional support as it assists entrepreneurs in feeling more confident and achieving better outcomes in their business ventures [5], as well as in motivating them towards early-stage entrepreneurship [6]. Institutional support has many components, including financial resources (FR), which significantly encourage entrepreneurial intention (EI), capacity and inclination among individuals [7].

✉ Ali Saleh Alshebami, aalshebami@kfu.edu.sa | [1]Applied College, King Faisal University, 31982 Al-Ahsa, Saudi Arabia.

In this vein, FR is a critical factor that contributes to generating successful small businesses. Accordingly, the absence of these resources can be considered a crucial barrier to a small business establishment, especially in developing countries [8, 9]. This ultimately minimises the level of EI, skills and expectations [10] and leads to excluding small enterprises from the financial markets [11]. Nevertheless, people, most of the time, need to develop specific skills, abilities and confidence that can help them leverage the available financial support and direct their internal thinking towards particular directions, such as starting their businesses with certain positive or negative expectations about the possible outcomes.

For this reason, the extant literature has considerably emphasised the necessity to focus on understanding the relationships among entrepreneurial self-efficacy (ESE), outcome expectations and EI [5, 12], particularly in developing countries. Understanding how entrepreneurs' mental, inspirational, environmental and contextual qualities and processes lead to business decisions is essential [13]. According to [14], some motivational components are still deemed more complex; thus, they require further investigation to enhance the understating regarding the cognitive process that leads to the decision to establish a business. Business intention among individuals requires different motivational aspects, support and commitment at different levels [13]. Any further investigations into these motivational factors should also consider moderation, interaction and mediation [13, 15]. Different motivational antecedents can contribute to developing individuals' ESE or intention towards establishing a business, including intrinsic outcome expectations (IOE) and extrinsic outcome expectations (EOE). EOE is believed to play a more substantial role in developing entrepreneurial behaviour and intention [16]. It has been characterised as external benefits gained as an outcome of behaviour, such as prestige and earnings. In contrast, IOE refers to the expected rewards tied to a personal interest in entrepreneurial tasks, such as personal fulfilment [17].

Accordingly, understanding how FR, EOE, IOE, ESE and EI interact is vital. This will help give policymakers a better understanding of the crucial factors encouraging EI among micro and small entrepreneurs, especially with continuous emphases on and calls to investigate this interaction. More precisely, there has been a constant call to explore how institutional factors influence ESE in developing countries [5, 18], on the one hand, and how ESE affects EI, on the other hand, among real entrepreneurs, as most previous studies have targeted only potential real-world entrepreneurs and students [19–22].

To summarise, FR are financial means that support micro and small entrepreneurs with the necessary financial products and services to start their small businesses and other activities [23]. They further help them strengthen their confidence, build their capability, identify new markets, achieve higher profit, generate more sales, invest in new technology and create a safety net that can be used in risky times to reduce fear of failure, all of which result in developing EOE. Furthermore, an entrepreneur's confidence level can also be strengthened through motivational factors, such as IOE. In other words, having positive feelings about performing specific tasks is an intrinsic feeling that ultimately leads to more confidence or self-efficacy in individuals about succeeding in their tasks [23, 24].

Entrepreneurs with high IOE are more likely to believe in themselves, work hard, recover from setbacks and make confident decisions. While feelings can positively influence ESE [25], ESE can also positively influence EI [26]. Furthermore, once ESE is developed among individuals, they can expect positive or negative outcomes from the specific tasks they plan to conduct. To clarify, when individuals have high confidence in achieving positive results, they are more likely to develop the intention to start a business for themselves [13, 27, 28].

In Saudi Arabia, entrepreneurship and the MSME sector are rapidly growing; according to [29], approximately 1.3 million MSMEs are operating in the market currently. These enterprises have an employee strength of approximately 6.5 million. In Saudi Arabia, 1.3 million enterprises constitute approximately 99.5% of the total enterprises. The Saudi government aims to increase enterprise contributions to the GDP from 20 to 30% by 2030. It also aims at diversifying their income sources and reducing dependence on oil and gas income by enhancing and supporting entrepreneurship, innovation and MSME projects in the country. To achieve these goals, Saudi Arabia has recently provided various financial support training programmes and incubation services to help entrepreneurs succeed in their businesses [30]. However, despite these continuous initiatives, such as the 2030 Saudi Vision [31], the critical factors that contribute to developing EI among Saudi individuals remain unclear [1]. Furthermore, entrepreneurs in Saudi Arabia still require more FR, training and monitoring to support their business startups [1, 32]. In addition, there has been limited research on the entrepreneurial ecosystem in Saudi Arabia [33].

This study has many contributions. First, it extends the available literature on ESE and outcome expectations by examining how institutional support represented by FR contributes to developing ESE and, at the same time, how ESE encourages EI and outcome expectations. Second, the study focuses on micro and small entrepreneurs in Saudi Arabia, a developing country with limited research on the proposed model. Third, unlike most previous studies that focused on students and yielded results that cannot be wholly generalised in most cases, as a university sample cannot represent the

whole population, this study targets micro and small entrepreneurs. Fourth, the study provides empirical evidence of the significant role that IOE and EOE play in developing ESE and EI simultaneously. Finally, the study offers a comprehensive model based on the social cognitive theory (SCT) for examining environmental and personal factors that influence the development of EI among micro and small entrepreneurs in Saudi Arabia. This research confirms policymakers' importance of FR, IOE and ESE in developing EI among micro and small entrepreneurs.

This paper is organised as follows. After the introduction, the literature review and hypotheses development are discussed. The research methodology is reported in the third section, followed by the data analysis and interpretation. The fourth and fifth sections include the study's discussion and conclusion. The article then concludes with implications and references.

2 Literature review and hypothesis development

2.1 Theoretical background

It is always necessary to support developed research models with the theoretical background to ensure strong support for the assumed relationships. Accordingly, in this research, the author builds this research on social cognitive theory (SCT), which is considered a well-known theory developed earlier by [34]. This theory assumes that the environment, behaviours, and personal features interact together and influence people's behaviour. SCT further considers self-efficacy, a critical concept that directs the behaviour of individuals toward specific behaviour and intentions such as entrepreneurial intention. It is assumed that FR, IEO, EOE, SE and EI interact here. In other words, the author believes that when individuals possess higher confidence, they can engage in more entrepreneurial activities and develop better intentions. Other concepts, such as IEO, refer to individuals' fulfilment.

In contrast, EOE refers to those seen as rewards or tangible ones received from conducting entrepreneurial activities. Furthermore, FR is considered a key driver for self-efficacy, confidence, and outcome expectations; once individuals have FR, they have more confidence to start their businesses or carry out entrepreneurial activities and success. Finally, the author assumes that ESE and EOE, influenced by FR, will positively impact EI among micro and small entrepreneurs. This model will provide a better insight into how FR, SE, IEO, EOE, and EI interact.

2.2 FR and ESE/IOE/EOE

FR are financial products and services that support individuals to start their businesses and strengthen their capability [23]. They contribute to developing innovation, creating new job opportunities and improving economic growth. However, approximately 90–95% of small entrepreneurs still need financial support to start their businesses [35]. Accordingly, financial support is considered a critical barrier for entrepreneurs and a challenge for socio-economic development in developing countries [11, 36, 37].

FR support entrepreneurs, increase their confidence and strengthen their self-efficacy [38]. For example, the study conducted empirically by [39] revealed a positive relationship between the provided financial capital and self-efficacy among the students believed to be potential entrepreneurs. FR allow individuals to develop higher self-efficacy, which prepares them to deal with potential challenges and achieve desired objectives efficiently [23, 40], such as developing EI and starting their businesses. Furthermore, having sufficient access to finance supported by a higher level of confidence can contribute to the development of extrinsic outcome expectations of individuals. These expectations are external resources received as a result of behaviour, including status and wages [17]. This access to finance also facilitates the identification of new markets, expand business operations, achieve higher profits, and increase sales and other benefits.

FR influence individuals' expectations by providing them with the means to invest, tools to expand their business networks and increased competitiveness, resulting in higher expectations of external rewards, such as increased sales, earnings and market share; business expansion; and industry recognition [41], resulting in the intention to start a business [13]. FR are a good source for strengthening individuals' confidence and aptitude, but it is not the only one; other factors can also enhance individual self-efficacy, such as IOE (intrinsic motivation). Accordingly, the extant literature has emphasised the investigation of other factors causing ESE development, in general, among people, particularly female entrepreneurs [18, 42].

Similar to intrinsic motives, IOE emphasises doing things because they are naturally fascinating or rewarding. In this case, acting is motivated by obstacles rather than external rewards and demands [43, 44]. Intrinsic motivations are based

on favourable experiences or satisfying outcomes from previous activities. Individuals generate good sensations and orientations towards specific tasks due to intrinsic incentives [44, 45]. Personal and intrinsic motives can favour self-efficacy or personal beliefs [23, 24, 44]. By examining the effect of passion for work on self-efficacy [25], it has been empirically confirmed that feelings can positively influence self-efficacy among entrepreneurs. In short, those with higher levels of IOE are more likely to be confident, work hard, bounce back from difficulties and make choices with greater assurance. This convinces people to pursue their dreams and increases the likelihood of accomplishing their goals [26]. These intrinsically motivated individuals may also be less motivated if they receive less financial assistance or are subjected to unknown stress and work pressure [46].

Based on the above discussion, the author argues that FR among micro and small enterprises can lead to better ESE and EOE. The author further believes that the micro and small entrepreneurs with higher IEO can more positively increase their ESE. Therefore, the author proposes the following hypotheses:

H1: There is a positive relationship between FRs and ESE.
H2: There is a positive relationship between IOE and ESE.
H3: There is a positive relationship between FRs and EOE.

2.3 ESE, EI and EOE

The concept of ESE indicates the level of belief about the ability, skills, confidence and power an individual has towards specific activities, such as starting a new business [5, 19, 47]. In other words, it measures an individual's belief in their abilities, expertise and skills to launch and manage an enterprise successfully. ESE prepares people to enter an occupation that they consider viable [17]. This concept has recently gained much research interest due to its influential role in strengthening and developing EI [5, 38, 48]. For example, [19] empirically investigated the influence of ESE on EI among a sample of 308 responses and found a positive relationship between the two factors. In addition, [20] examined the influence of ESE on EI by collecting a sample of South Korean and American students and found a positive relationship. Other studies conducted by [21, 22, 49] to examine the influence of ESE on EI among students in various contexts also revealed a positive connection between the two factors.

Furthermore, for individuals to optimise their EI, they must enhance their ESE [50, 51], which can be accomplished by improving their understanding and consciousness about their surroundings, environment and support for entrepreneurial activities. The influence of ESE has also been confirmed by the theory of planned behaviour, which states that an individual's EI can be developed using three factors, namely attitude, subjective norms and perceived behavioural control, which have the same meaning as self-efficacy and have the highest influence on intention [50].

The preceding work has consistently emphasised the need to investigate the influence of ESE on outcomes other than EI [12]. As a result, a small body of literature, such as [13, 52, 53], has investigated how self-efficacy and outcome expectations interact and how ESE and outcome expectations affect EI. However, there has been negligible research on the significant relationship between EOI and EI [13]. The presence of limited literature has been confirmed by [54].

Furthermore, there is insufficient literature on whether ESE can mediate the relationship between EOE and EI [55], especially among micro and small entrepreneurs in developing countries. Whenever individuals believe that specific behaviours are attainable, they have a high degree of self-efficacy, which implies that they have reasonable result expectations [13, 34, 52]. In simple words, people confident in their abilities are more likely to expect positive outcomes because they believe they will receive desirable rewards from activities that they are good at [52], which means they will develop higher EI to start a new venture [13, 56].

To summarise, the author argues that access to FR increases the level of self-efficacy and EI among individuals [57]. Furthermore, individuals with high self-efficacy expect to succeed in their actions and wish to receive financial gains, social acknowledgement and personal satisfaction. In contrast, those with low levels of self-efficacy and confidence expect failure and unsuccessful outcomes, which ultimately reduces their intention to start any potential business. In addition, the author proposes that EOE can assist individuals with high ESE to create particular goals, impact their readiness to take risks and inspire their perseverance in pursuing entrepreneurial possibilities. These individuals are more inclined to start and run a business because they believe that their efforts will result in desirable external consequences. Accordingly, the author proposes the following hypotheses:

H4: There is a positive relationship between ESE and EI.

H5: There is a positive relationship between ESE and EOE.
H6: ESE mediates the relationship between FR and EI.
H7: ESE mediates the relationship between IOE and EI.
H8: EOE mediates the relationship between FR and EI.
H9: There is a positive relationship between EOE and EI.

2.4 Hypothesised model

The conceptual model depicted in Fig. 1 was developed based on a review of previous literature on the study's topics. Accordingly, this study evaluates how FR influence ESE and EOE. It also analyses how IOE influences ESE and how ESE affects EI and EOE. Finally, the model investigates the impact of EOE on EI among micro and small entrepreneurs and discloses various mediations for different variables.

3 Methodology

3.1 Research design, data collection and respondents

This study targeted 201 micro and small entrepreneurs operating in different regions of Saudi Arabia, and responses to self-administered online questionnaires were gathered from May to July 2023. In some cases, business owners were absent. Accordingly, the author resorted to their representatives or those in charge of the business to fill out the questionnaires. To collect reliable information, the author ensured that the representatives responding were fully aware of the business operations and clearly understood the enterprise's activities, objectives and vision. Notably, those micro and small businesses have limited business scale and function in a more networked manner; thus, the tasks and decision-making are wholly known to those working in the business and their representatives.

Before sending the questionnaire to the respondents, it was first translated into Arabic by an authentic Arabic language translator, as the mother tongue of the respondents was Arabic. Once the translation was completed, it was checked by professional academics to eliminate any errors. The questionnaire was then sent to some respondents to check for any difficulty in its contents, and since there was no problem with it, it was then sent to all respondents and kept online for about two months. This study was deductive and quantitative and used convenience sampling. Convenience sampling refers to non-probability sampling that provides researchers with easy access to data. It can be used for both quantitative and qualitative studies and targets respondents willing to be engaged in the study's sample [58, 59]. Furthermore,

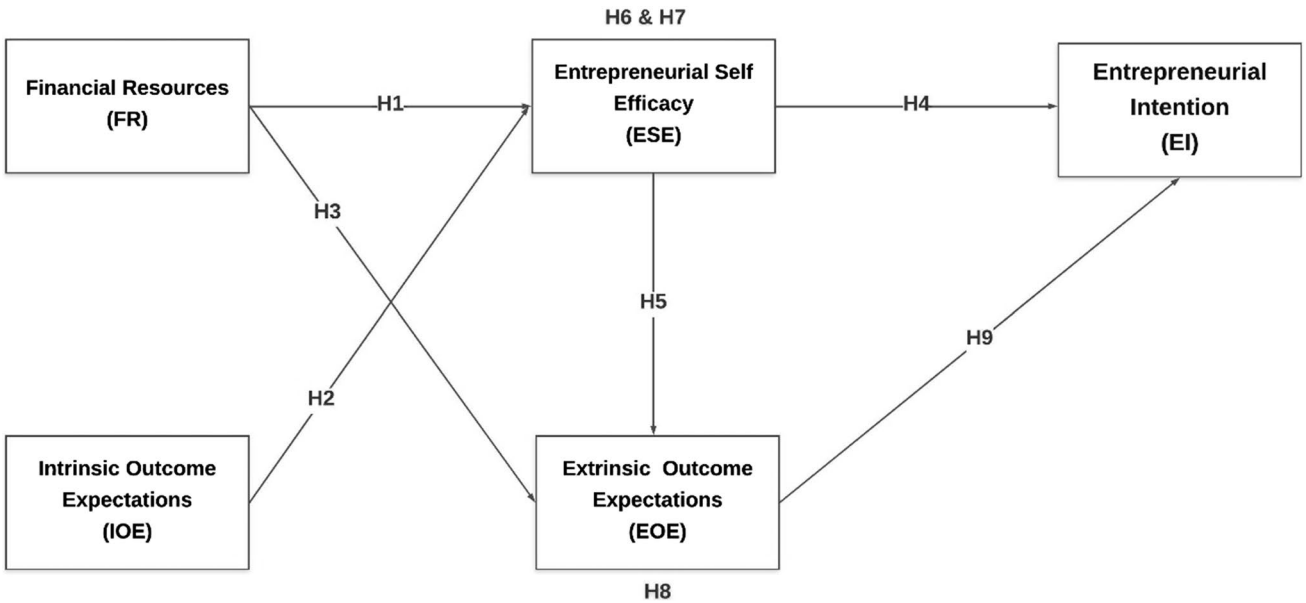

Fig. 1 Conceptual model. Source: Author's elaboration

the author targeted only micro and small enterprises with employees ranging from 1 to 49. These enterprises frequently operate in specialised geographic areas or industries. Thus, they are more accessible than large firms. Similarly, researchers' restricted financial and time constraints make convenience sampling a viable option. Furthermore, because micro and small businesses frequently fail or have limited success, obtaining a comprehensive database that correctly captures their population is difficult. This was also a cross-sectional study in which data were collected from respondents at a single point in time.

3.2 Measures of the study

As indicated earlier, this study was quantitative and required primary data to be collected; accordingly, a questionnaire was developed after carefully reviewing the available literature, and suitable measures were selected and used to evaluate the developed concepts of the study. FR were measured using the questions adopted from [35]. Furthermore, the questions of IOE, EOE and ES were adopted from [17]. Finally, the measures for the EI questions were adopted from [60]. The study used five Likert scales to collect data from the respondents. The questionnaire used in the study is attached in the Appendix for further clarification.

4 Results

4.1 Demographic information analysis

The study involved 201 micro and small entrepreneurs, with 120 male and 81 female respondents. The marital status of the respondents was approximately 33% married, 66% single and 1% neither single nor married. Furthermore, approximately 59% of the respondents were aged between 18 and 28 years, 32% were aged between 29 and 39 years, 8% were aged between 40 and 50 years and 1% were aged above 50 years. Regarding the respondents' education level, those with a higher secondary school education had the highest percentage (42%). Furthermore, regarding job experience, most respondents (64%) had fewer than five years of experience. Finally, the data of the respondents' industries revealed that approximately 48% and 40% of the respondents worked in the retail and wholesale sectors and services sectors, respectively. In comparison, the remaining 5% and 8% worked in the agriculture and small crafts-making sectors, respectively.

4.2 Data analysis

The analysis of partial least squares structural equation modelling (PLS-SEM) was conducted in two essential steps: examining both measurement and structural models, as mentioned below.

4.3 Measurement model

In the measurement model, the constructs and indicators used in the study must meet particular requirements for reliability and validity. Composite reliability (CR), Cronbach's alpha (CA), variance inflation factor (VIF) and average variance extracted (AVE) tests were conducted to measure validity and reliability. Construct item reliability should have a factor loading value greater than 0.70; nevertheless, a factor loading value greater than 0.65 is acceptable to affirm an indicator's capacity to explain 0.50 variation [35]. In our findings, we removed values with a score less than 0.65. Furthermore, according to [61], the values of CR and CA should be between 0.70 and 0.95, which was also achieved, as reported in Table 1. Furthermore, we used the average variance extracted (AVE) test to determine the convergent validity of the research constructs, which indicated that the constructs in a study should have an AVE of 0.50 or above [62]. The AVE value displayed in Table 1 meets the specified threshold, indicating high convergent validity. Finally, the author examined the study for the presence of multicollinearity. The multicollinearity test determines whether there is an increased connection between the independent variables. All inner VIF values reported in the study were less than 3, showing no collinearity among the study variables [63].

Following the reliability and validity tests, we examined the research variables' distinctness using the [64] test. The discriminate validity test confirmed that the AVE's square root for each construct must be greater than the variables'

Table 1 Measurement model. Source: Primary analysis

Construct and items	Loading	CA	CR	AVE	Inner VIF
Financial resources		0.762	0.772	0.510	1.380
FR1	0.703				
FR2	0.706				
FR3	0.816				
FR4	0.657				
FR5	0.676				
Intrinsic outcome expectations		0.854	0.857	0.579	1.380
IOE3	0.717				
IOE4	0.748				
IOE5	0.729				
IOE6	0.808				
IOE7	0.760				
IOE8	0.801				
Entrepreneurial self-efficacy		0.894	0.897	0.513	1.405
SE1	0.682				
SE2	0.767				
SE3	0.757				
SE4	0.755				
SE5	0.704				
SE6	0.749				
SE7	0.704				
SE8	0.674				
SE9	0.684				
SE10	0.678				
Extrinsic outcome expectations		0.820	0.821	0.527	1.405
EOE1	0.717				
EOE2	0.702				
EOE3	0.703				
EOE4	0.780				
EOE5	0.707				
EOE6	0.744				
Entrepreneurial intention		0.865	0.868	0.598	
EI1	0.717				
EI2	0.701				
EI3	0.773				
EI4	0.822				
EI5	0.833				
EI6	0.785				

inter-correlations with other model variables. The results of this study regarding the discriminate validity tested using the Fornell and Larcker test are shown in Table 2.

4.4 Structural model analysis

The author validated the structural model results once the measurement model analysis was completed. This study used the bootstrapping technique to generate the path values and their significance levels according to the guidelines [65]. In the structural model, the linear regression impact of the variables used in this study was analysed carefully using path coefficients, P-value, T-value and coefficient of determination (R^2) [63]. First, all hypotheses assumed in the study were accepted, except for H8 and H9; further justification is presented in the Discussion section. Second, the R^2 values for endogenous latent variables were assessed as follows: ≤ 0.26 (substantial), ≤ 0.13 (moderate) and ≤ 0.02 (weak) according

Table 2 Discriminate validity. Source: Primary analysis

	Entrepreneurial intention	Entrepreneurial self-efficacy	Extrinsic outcome expectations	Financial resources	Intrinsic outcome expectations
Entrepreneurial intention	0.773				
Entrepreneurial self-efficacy	0.686	0.716			
Extrinsic outcome expectations	0.444	0.537	0.726		
Financial resources	0.448	0.530	0.441	0.714	
Intrinsic outcome expectations	0.574	0.767	0.644	0.525	0.761

to [66]. The R^2 result found in this study indicates that approximately 61.1% of the variance in ESE can be explained by variations in FR. Moreover, approximately 47.9% of the variance in EI can be explained by variation in ESE, and approximately 32.3% of the variance in EOE can be explained by variation in FR.

According to [66], the effect sizes of ≤ 0.02, ≤ 0.15 and ≤ 0.35 are considered weak, moderate and substantial effects of the exogenous variables on the dependent variable. Accordingly, the findings related to F^2 reported a substantial effect (0.539) between ESE and EI, moderate effect (0.189) between ESE and EOE, no effect (0,016) between EOE and EI, weak effect (0.057) between FRs and ESE, weak effect (0.051) between FR and EOE and substantial effect (0.85) between IOE and ESE. The final step was to analyse the result of Q^2, namely the predictive relevance of the model. It is recommended that to have an excellent predictive relevance of the model, the Q^2 value must be greater than zero ($Q^2 < 0$). The study's results showed that all values were above zero, indicating good predictive relevance of the proposed model. Furthermore, using Herman's factor test, the author examined the presence of common method bias in the study's data. Accordingly, since the total variance extracted by one factor did not exceed 50%, common method bias was absent in the data [67].

Furthermore, the author tested the model fit using the SRMR test; according to the literature, the presence of lower values means a better fit. In the study findings, both the saturated model (0.074) and the estimated model (0.080) had relatively low SRMR values, which indicates an acceptable fit for the model.

Table 3 shows the findings of the structural model, as explained earlier.

Figure 2 displays the path coefficients of the variables used in the study.

5 Discussion

This study aimed to provide insights into how FRs, ESE, EI, IOE and EOE interact. As a result, a conceptual model was created based on a thorough literature review, and nine hypotheses were developed.

The author started with the results of the direct relationships. The first hypothesis (H1) investigated the link between FR and ESE and discovered a positive and significant relationship (β = 0.175, P > 0.05). This finding is rational since the

Table 3 Hypotheses testing. Source: Primary analysis

Hypothesis	Relationship	Path Coefficient	Mean	*t*- value	*P*- values	Decision
Direct relationship						
H1	FR—> ESE	0.175	0.175	2.972	0.003	Supported
H2	IOE—> ESE	0.676	0.678	15.339	0.000	Supported
H3	FR—> EOE	0.218	0.223	2.709	0.007	Supported
H4	ESE—> EI	0.629	0.631	8.904	0.000	Supported
H5	ESE—> EOE	0.421	0.428	5.309	0.000	Supported
H9	EOE—> EI	0.107	0.109	1.387	0.166	Rejected
Indirect relationship						
H6	FR—> ESE—> EI	0.110	0.111	2.671	0.008	Supported
H7	IOE—> ESE—> EI	0.425	0.427	8.407	0.000	Supported
H8	FR—> EOE—> EI	0.023	0.027	1.084	0.279	Rejected

T-value > 1.96, ($p < 0.05$)

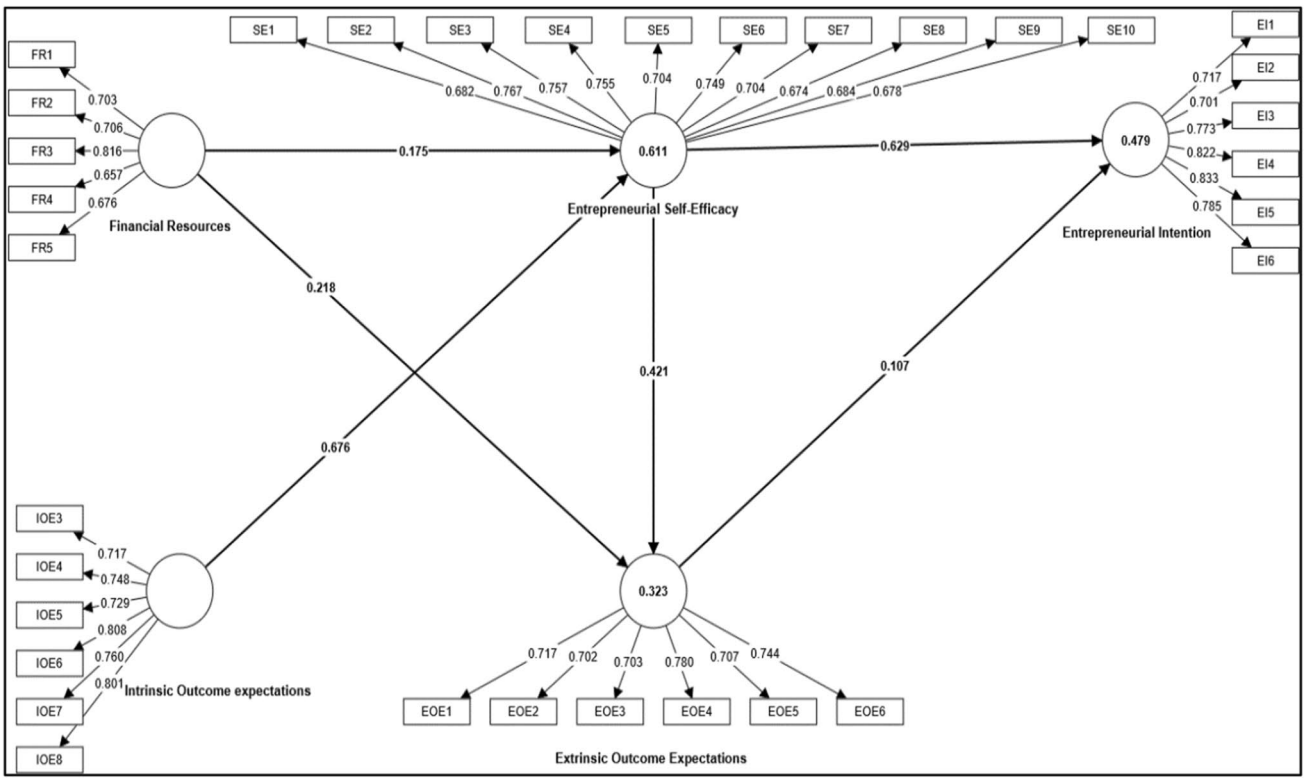

Fig. 2 Path coefficients. Source: Primary data

more financial support offered to individuals, such as micro and small entrepreneurs, the more confidence, ability and skills they will have. Those with incredible financial support feel more confident in carrying out specific activities without feeling pressured or anxious about arranging the necessary finances for their enterprise. They can begin looking for new ideas, purchasing the required types of equipment, hiring staff and launching revenue-generating activities. These findings are supported by previous research [38, 68]. The second hypothesis (H2) investigated the link between IOE and ESE and discovered a positive and significant relationship ($B = 0.676$, $P < 0.05$). This finding was expected because people with positive thoughts about executing specific tasks have better self-efficacy and confidence in completing such tasks. Individuals with a higher degree of IOE are more likely to trust in themselves, work hard, recover from failures and make confident decisions, giving them more courage in achieving tremendous success. These findings are supported by previous research [23–25].

The third hypothesis (H3) investigated the influence of FR on EOE and reported promising findings. The finding reported that FR has a positive and significant connection with EOE ($B = 0.218$, $P < 0.05$). This finding was expected, as FR is believed to provide individuals with necessary financial support or means that can be used; for example, the provision of funds can help entrepreneurs identify new markets, expand their existing business activities, achieve higher profit, increase sales and invest in new technology. All these benefits make people, in general, and entrepreneurs, in particular, expect positive outcomes if they receive FRs that will benefit them accordingly and let them decide about establishing specific investments or developing business intentions. This finding is supported by [10, 69]. Concerning the fourth hypothesis (H4), which investigated the impact of ESE on EI, this hypothesis was accepted ($B = 0.629$, $P < 0.05$) and demonstrated a positive and significant association between ESE and EI. This outcome is expected because people with high ESE have more confidence, ability and skills and believe more in themselves and their abilities to accomplish particular activities. They also trust in their abilities to meet any problems and difficulties and create more resilience to assist them in bouncing back through a difficult moment; the more skills and confidence they have, the more EI they exhibit. This finding is supported by the literature [5, 19, 38, 48].

Regarding the fifth hypothesis (H5), the results revealed a positive and significant relationship between ESE and EOE ($B = 0.421$, $P < 0.05$). This outcome was expected, as individuals with higher ESE felt more confident in themselves and their abilities to undertake particular actions, such as beginning a new firm. Because these entrepreneurs are highly self-confident, they generate external outcome expectations based on their increased confidence level. For example, they

believe they will be successful, develop new products and services, expand their enterprises' existing scale of operation, earn more profit and create more sales and make the best use of available resources. In short, the greater the presence of ESE in micro and small entrepreneurs, the greater their ability to build more positive result expectations. This finding is consistent with previous findings [13, 50, 52, 70, 71]. The ninth hypothesis (H9) was developed to investigate the relationship between EOE and EI. The finding of indicated the absence of any significant positive link between the two variables ($B = 0.107$, $P > 0.05$); hence, H9 was rejected.

Regarding indirect interactions, the author began with H6, which investigated whether ESE can mediate the relationship between FR and EI. As a result of this hypothesis, the ability of ESE to mediate the link between FR and EI was reported ($B = 0.110$, $P > 0.05$). The outcome of H6 was expected, simply because FR is an essential financial tool for individuals and helps them build confidence and self-efficacy while gaining new abilities. Individuals with more FR can use the available funds to improve their abilities, purchase more equipment, expand their present firms or establish new ones. FR is critical in building general trust among individuals, especially micro and small entrepreneurs. The more self-confidence gained, the more ability and skills developed, ultimately leading to a higher aim of business development and entrepreneurial activities [38, 68, 72].

Furthermore, the author discussed the result of H7, which investigated whether ESE can mediate the relationship between IOE and EI. The result proved the ability of ESE to mediate the relationship between IOE and EI ($B = 0.425$, $P < 0.05$). This finding was expected, as those with higher IOE have inner feelings that help build self-efficacy, direct the orientation and build confidence in themselves, work more quickly, recover from setbacks and make more confident decisions about business establishment or developing EI. People with higher intrinsic result expectations or motives are more capable of pursuing their dreams and improving their chances of success. They are also less motivated if they receive less financial help or face unknown stress and work pressure, implying that they have gained greater confidence. These results are supported by previous studies [26, 45, 46]. Concerning H8, which investigated whether EOE can mediate the relationship between FR and EI, the result ($B = 0.023$, $P < 0.05$) unexpectedly reported the inability of EOE to mediate the relationship between FR and EI.

Finally, it is essential to comment on the rejected hypotheses, as this rejection might be a result of the entrepreneurs' will to prioritise intrinsic motivations, such as personal fulfilment and passion for their work, over extrinsic outcomes, such as financial gain or status. Furthermore, the reason is limited FR, which makes entrepreneurs prefer and focus on non-FR and personal capabilities for business development. The reason can also be the complex and multifaceted nature of the relationships among EOE, FR and EI in the micro and small enterprises sector, indicating that more factors affect entrepreneurial intentions.

6 Conclusion

As entrepreneurship and micro and small enterprises have become the backbone of any economy due to their role in providing job opportunities, reducing poverty and improving socio-economic conditions, it is essential to understand the key factors contributing to qualifying people to become confident and highly motivated entrepreneurs. Accordingly, this study aimed to understand the key elements, such as institutional factors (FR) and motivational factors (IOE and EOE), that contribute to EI and strengthen confidence among entrepreneurs, especially in a developing country such as Saudi Arabia.

Accordingly, a sample of 201 was selected from micro and small entrepreneurs operating in various places in Saudi Arabia, and the data collected were analysed using PLS-SEM. The study mainly aimed to examine how FR influences ESE and EOE. It further investigates the influence of IOE on ESE and how ESE affects both EI and EOE. The study also measured the connection between EOE and EI. The study reported some attractive findings, such as the ability of FR to positively and significantly influence both ESE and EOE. The finding also noted ESE's ability to influence EI and EOE. Furthermore, the study reported unexpected results on the connection between EOE and EI. The study also demonstrated that ESE can mediate the relationship between FR and EI and that between IOE and EI. Finally, EOE was unable to bridge the gap between FR and EI.

This study covers research gaps in comprehending the connections among ESE, FR, EI, IEO and EOE. It provides theoretical and empirical support for the proposed model's application in Saudi Arabia. The study also provides significant advice to policymakers and other incubators on the steps to take to optimise the benefits of FR, IOE and EOE in developing confidence, self-efficacy and EI among micro and small entrepreneurs. The study also provides theoretical and practical implications for various stakeholders in the study environment to better benefit from the research conclusions.

7 Theoretical implications

This is one of the limited research papers combining FR, ESE, EI, EOE, and IOE in one model. Accordingly, this study's proposed model and findings provide many theoretical implications of different significance. First is the implication related to the positive connection between FR, ESE, and EI, which confirms the pivotal role ESE plays in directing EI and action among micro and small entrepreneurs in the context of the study toward entrepreneurial activities and business success. It also confirms that an individual's ESE, confidence, and capabilities can be increased by having more FR, which will indirectly influence their EI. This confirms the claim of SCT, stating that there is a link between environmental factors and personal characteristics in shaping individuals' behaviours. Also, the significant positive relationships among IOE, ESE, and EI highlight the role of internal stimulus and personal goals in self-efficacy and subsequent entrepreneurial intentions. The findings related to the rejected hypothesis (H8) confirm EOE cannot mediate the relationship between FR and EI and encourage further investigations. This study also offers other academics a research map for future investigations and specific recommendations for future initiatives. The study also contributes to the limited literature on IOE and EOE and their impact on EI and ESE, particularly in developing nations.

8 Practical implications

The findings of this study provide different practical implications, such as emphasizing the need for policymakers and other governmental organizations to provide necessary initiatives that empower and strengthen micro and small entrepreneurs, such as providing financial resources and support. Financial resources, including grants, loans, and access to capital, are key factors that can enhance entrepreneurs' self-confidence and self-efficacy, ultimately improving their chances of success. Additionally, business development organizations can play a pivotal role in assisting entrepreneurs in accessing financial resources through various funding options, connecting them with investors or lenders, and offering financial literacy programs. It is also recommended that micro and small entrepreneurs receive the necessary training and vital educational programs capable of enriching entrepreneurs with essential technical skills while enhancing their intrinsic motivations and personal fulfilment. Providing entrepreneurial programs and networking services will strengthen entrepreneurs' self-efficacy and confidence by instilling willingness and enthusiasm toward entrepreneurship and giving them more chances to succeed. Finally, the study argues that any support intended to be provided for those micro and small entrepreneurs should be comprehensive and include different supporting types. For example, the support that should be provided should consist of financial and non-financial components, mentorship, networking opportunities, and market access.

9 Limitations of the study and future research

This study has limitations. For example, it is based on a small sample size and uses the convenience sampling technique, which may restrict the generalisability of the findings. As a result, it is recommended that the sample size be maximised and that data be collected using a random sample size approach. In future studies, there may be additional opportunities to explore the effects of further cultural and incubation factors on IOE, EOE and EI in diverse contexts or in Saudi Arabia. Further research is also needed to explore the factors that drive EI among micro and small entrepreneurs beyond financial rewards. Samples for future studies may also be recruited from various contexts. It is also recommended to explore the influence of moderators, such as cultural and social influences, on behavioural action.

Author contributions The whole work has been conducted by one author only.

Funding This work was supported by the Deanship of Scientific Research, Vice President for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Grant No. 6122].

Data availability The data used to support the findings of this study are available upon request. However, please note that the data for this article were generated as part of a project funded partially by King Faisal University. Due to the nature of the funding and to protect intellectual property rights, the data cannot be shared without prior permission from King Faisal University.

Code availability Not applicable.

Declarations

Ethical approval and consent to participate The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Ethics Committee of King Faisal University.

Informed consent Informed consent was obtained from all subjects involved in the study.

Competing interests The author declares that there is no competing interests.

Appendix

Concept and measures	Sources
Entrepreneurial intention	[60]
I am ready to do anything to be an entrepreneur	
My professional goal is to become an entrepreneur	
I will make every effort to start and run my own firm	
I am determined to create a firm in the future	
I have very seriously thought of starting a firm	
I have the strong intention to start a firm someday	
Extrinsic outcome expectations	[17]
As an entrepreneur, I would receive good economic compensation	
As an entrepreneur, I would receive work security and stability	
As an entrepreneur, I would receive work flexibility	
As an entrepreneur, I would receive good social status	
As an entrepreneur, I would receive opportunities for improvement and professional promotion	
As an entrepreneur, I would receive prestige and social recognition	
Intrinsic outcome expectations	[17]
As an entrepreneur, I would obtain work autonomy and independence	
As an entrepreneur, I would obtain personal fulfilment	
As an entrepreneur, I would obtain the chance to perform challenging and interesting work	
As an entrepreneur, I would obtain the chance to perform a variety of tasks	
As an entrepreneur, I would obtain opportunities for learning	
As an entrepreneur, I would obtain a better fit between labour skills and requirements	
As an entrepreneur, I would obtain professional satisfaction	
As an entrepreneur, I would obtain a positive self-image	
Entrepreneurial self-efficacy	[17]
I feel able to identify a business opportunity	
I feel able to develop a viable business project	
I feel able to plan business operative areas	
I feel able to gather resources to start a business	
I feel able to organize resources to start a business	
I feel able to lead and manage a business	
I feel able to organize production operations and logistics	
I feel able to commercialize goods and services	
I feel able to recruit and manage employees	
I feel able to keep the accounts and administrative issues	

Concept and measures	Sources
Financial support	[35]
Insufficient cheap and long-term capital is a major factor affecting the emergence and development of entrepreneurship in Saudi Arabia	
Venture capital is not easily available to SMEs in Saudi Arabia due ignorance	
Availability of capital support leads to the existence of new indigenous entrepreneurship in Saudi Arabia	
Government has made enough effort to ensure that funds are available for entrepreneurial activities in Saudi Arabia	
Unemployment and poverty in Saudi Arabia are due to inadequate entrepreneurship emergence and development	

References

1. Ali MA, Badghish S. Symmetric and asymmetric modeling of entrepreneurial ecosystem in developing entrepreneurial intentions among female university students in Saudi Arabia. Int J Gend Entrep. 2019;11(4):435–58.
2. Al Shammre AS, Alshebami AS, Ali Seraj AH, Elshaer IA, Al Marri SH. Unleashing environmental performance: the impact of green entrepreneurial motivation on small enterprises. Front Environ Sci. 2023;11:1–12. https://doi.org/10.3389/fenvs.2023.1176804.
3. Chew TC, Tang Y, Buck T. The interactive effect of cultural values and government regulations on firms' entrepreneurial orientation. J Small Bus Enterp Dev. 2021. https://doi.org/10.1108/JSBED-06-2021-0228.
4. Eniola AA. Entrepreneurial self-efficacy and orientation for SME development. Small Enterp Res. 2020;27(2):125–45. https://doi.org/10.1080/13215906.2020.1752295.
5. Simarasl N, Tabesh P, Munyon TP, Marzban Z. Unveiled confidence: exploring how institutional support enhances the entrepreneurial self-efficacy and performance of female entrepreneurs in constrained contexts. Eur Manag J. 2022. https://doi.org/10.1016/j.emj.2022.07.003.
6. Dahlstrand AL, Politis D. Women business ventures in Swedish university incubators. Int J Gend Entrep. 2013;5(1):78–96. https://doi.org/10.1108/17566261311305229.
7. Sriram V, Mersha T, Herron L. Drivers of urban entrepreneurship: an integrative model. Int J Entrep Behav Res. 2007;13(4):235–51. https://doi.org/10.1108/13552550710760012.
8. Rungani EC, Potgieter M. The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape province. Acta Commer Res J Manag Sci. 2018;18(1):1–12. https://doi.org/10.4102/ac.v18i1.591.
9. Beck T, Demirguc-Kunt A, Pería MS. Bank financing for SMEs: evidence across countries and bank-ownership types. SSRN J. 2009. https://doi.org/10.2139/ssrn.1471331.
10. Sandhu MS, Sidique SF, Riaz S. Entrepreneurship barriers and entrepreneurial inclination among Malaysian postgraduate students. Int J Entrep Behav Res. 2011;17(4):428–49. https://doi.org/10.1108/13552551111139656.
11. Fatoki OO. The impact of human, social and financial capital on the performance of small and medium-sized enterprises (SMEs) in South Africa. J Soc Sci. 2011;29(3):193–204. https://doi.org/10.1080/09718923.2011.11892970.
12. Newman A, Obschonka M, Schwarz S, Cohen M, Nielsen I. Entrepreneurial self-efficacy: a systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. J Vocat Behav. 2019;110:403–19. https://doi.org/10.1016/j.jvb.2018.05.012.
13. Liguori E, Winkler C, Vanevenhoven J, Winkel D, James M. Entrepreneurship as a career choice: intentions, attitudes, and outcome expectations. J Small Bus Entrep. 2019;32(4):311–31. https://doi.org/10.1080/08276331.2019.1600857.
14. Liñán F, Fayolle A. A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. Int Entrep Manag J. 2015;11(4):907–33.
15. Pollack JM, Vanepps EM, Hayes AF. The moderating role of social ties on entrepreneurs' depressed affect and withdrawal intentions in response to economic stress. J Organ Behav. 2012;33(6):789–810. https://doi.org/10.1002/job.1794.
16. Benzing C, Chu HM, Kara O. Entrepreneurs in Turkey: a factor analysis of motivations, success factors, and problems. J Small Bus Manag. 2009;47(1):58–91. https://doi.org/10.1111/j.1540-627X.2008.00262.x.
17. Lanero A, Vázquez JL, Aza CL. Social cognitive determinants of entrepreneurial career choice in university students. Int Small Bus J Res Entrep. 2015;34(8):1053–75. https://doi.org/10.1177/0266242615612882.
18. Kazumi T, Kawai N. Institutional support and women's entrepreneurial self-efficacy. Asia Pac J Innov Entrep. 2017;11(3):345–65. https://doi.org/10.1108/apjie-12-2017-041.
19. Tsai KH, Chang HC, Peng CY. Extending the link between entrepreneurial self-efficacy and intention: a moderated mediation model. Int Entrep Manag J. 2016;12(2):445–63. https://doi.org/10.1007/s11365-014-0351-2.
20. Jung DI, Ehrlich S, Noble A. Entrepreneurial Self-efficacy and its relationship to entrepreneurial action: a comparative study between the US and Korea. Manag Int Montréal. 2001;6(1):41–53.
21. Borchers A, Park S-H. Understanding entrepreneurial mindset: a study of entrepreneurial self-efficacy, locus of control and intent to start a business. J Eng Entrep. 2010;1(1):51–62.
22. Peng Z, Lu G, Kang H. Entrepreneurial intentions and its influencing factors: a survey of the university students in Xi'an China. Creat Educ. 2012;03(08):95–100. https://doi.org/10.4236/ce.2012.38b021.
23. Neneh BN. Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy. Stud High Educ. 2022;47(3):587–603. https://doi.org/10.1080/03075079.2020.1770716.

24. Murnieks CY, Mosakowski E, Cardon MS. Pathways of passion: identity centrality, passion, and behavior among entrepreneurs. J Manage. 2014;40(6):1583–606. https://doi.org/10.1177/0149206311433855.
25. Baum JR, Locke EA. The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. J Appl Psychol. 2004;89(4):587–98. https://doi.org/10.1037/0021-9010.89.4.587.
26. De Clercq D, Honig B, Martin B. The roles of learning orientation and passion for work in the formation of entrepreneurial intention. Int Small Bus J. 2013;31(6):652–76. https://doi.org/10.1177/0266242611432360.
27. Hayward MLA, Shepherd DA, Griffin D. A Hubris theory of entrepreneurship. Manage Sci. 2006;52(2):160.
28. Dennis WJ, Solomon G. Changes in intention to grow over time. In: Denni WJ, editor. The Babson/Kauffman Foundation Entrepreneurship Research Conference. Jonkoping: BKERC; 2001.
29. Monsha'at. SME monitor: monsha ' at quarterly—Q1—Arabic Version. 2023.
30. Elnadi M, Gheith M. Entrepreneurial ecosystem, entrepreneurial self-efficacy, and entrepreneurial intention in higher education: evidence from Saudi Arabia. Int J Manag Educ. 2021;19(1):1–12.
31. Al-Mamary Y, Alshallaqi M. Impact of autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness on students' intention to start a new venture. J Innov Knowl. 2022;7:1–11.
32. Alshebami A, Seraj AHA. Investigating the impact of institutions on small business creation among Saudi entrepreneurs. Front Psychol. 2022;13(June):1–9. https://doi.org/10.3389/fpsyg.2022.897787.
33. Khan M. Mapping entrepreneurship ecosystem of Saudi Arabia. World J Entrep Manag Sustain Dev. 2013;9(1):28–54. https://doi.org/10.1108/20425961311315700.
34. Bandura A. Social cognitive theory: an agentic perspective. Asian J Soc Psychol. 2001;2(1):1–26.
35. Li C, Ahmed N, Qalati SA, Khan A, Naz S. Role of business incubators as a tool for entrepreneurship development: the mediating and moderating role of business start-up and government regulations. Sustain. 2020;12(5):1–23. https://doi.org/10.3390/su12051822.
36. Mindra R, Moya M. Financial self-efficacy: a mediator in advancing financial inclusion. Equal Divers Incl. 2017;36(2):128–49. https://doi.org/10.1108/EDI-05-2016-0040.
37. Khan AM, Arafat MY, Raushan MA, Saleem I, Khan NA, Khan MM. Does intellectual capital affect the venture creation decision in India?". J Innov Entrep. 2019;8(1):1–15. https://doi.org/10.1186/s13731-019-0106-y.
38. Dharmanegara IBA, Rahmayanti PLD, Yasa NNK. The role of entrepreneurial self-efficacy in mediating the effect of entrepreneurship education and financial support on entrepreneurial behavior. Int J Soc Sci Bus. 2022;6(2):165–73. https://doi.org/10.23887/ijssb.v6i2.46719.
39. Raelin JA, Bailey MB, Hamann J, Pendleton LK, Reisberg R, Whitman DL. the Gendered effect of cooperative education, contextual support, and self-efficacy on undergraduate retention. J Eng Educ. 2014;103(4):599–624. https://doi.org/10.1002/jee.20060.
40. Arenius P, Minniti M. Perceptual variables and perceptual nascent entrepreneurship. Small Bus Econ. 2005;24(3):233–47. https://doi.org/10.1007/sIll87-005-1984-x.
41. Chen CC, Greene P, Crick A. Does entrepreneurial self efficacy distinguish entrepreneurs from managers? J Bus Ventur. 1988;13:295–316.
42. Bulanova O, Isaksen EJ, Kolvereid L. Growth aspirations among women entrepreneurs in high growth firms. Balt J Manag. 2016;11(2):187–206. https://doi.org/10.1108/BJM-11-2014-0204.
43. Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol. 2000;55(1):68–78. https://doi.org/10.1037//0003-066x.55.1.68.
44. Jordaan AJ. Entrepreneurial self-efficacy, intrinsic motivation, and entrepreneurial intention as antecedents of nascent necessity-entrepreneur business start-up behaviour in South Africa: a longitudinal study. 2014.
45. Thomas KW. Intrinsic motivation at work: building energy and commitment hardcover. 2nd ed. Oakland: Berrett-Koehler Publishers; 2000.
46. Carree MA, Verheul I. What makes entrepreneurs happy? Determinants of satisfaction among founders. J Happiness Stud. 2012;13(2):371–87. https://doi.org/10.1007/s10902-011-9269-3.
47. Boudreaux CJ, Nikolaev BN, Klein P. Socio-cognitive traits and entrepreneurship: the moderating role of economic institutions. J Bus Ventur. 2019;34(1):178–96. https://doi.org/10.1016/j.jbusvent.2018.08.003.
48. Alshebami A. Redefining resilience : the case of small entrepreneurs in Saudi Arabia. Front Environ Sci. 2023. https://doi.org/10.3389/fenvs.2022.1118016.
49. Zhao H, Hills GE, Seibert SE. The mediating role of self-efficacy in the development of entrepreneurial intentions. J Appl Psychol. 2005;90(6):1265–72. https://doi.org/10.1037/0021-9010.90.6.1265.
50. Powers B, Le Loarne-Lemaire S, Maalaoui A, Kraus S. 'When I get older, I wanna be an entrepreneur': the impact of disability and dyslexia on entrepreneurial self-efficacy perception. Int J Entrep Behav Res. 2020;27(2):434–51. https://doi.org/10.1108/IJEBR-06-2020-0400.
51. Liñán F, Nabi G, Krueger NF. British and Spanish entrepreneurial intentions: a comparative study. Rev Econ Mund. 2013;33(May):73–103.
52. Lent RW, Brown SD, Hackett G. Toward a unifying social cognitive theory of career and academic interest, choice, and performance. J Vocat Behav. 1994;45(1):79–122.
53. Fouad NA, Smith PL. A test of a social cognitive model for middle school students: math and science. J Couns Psychol. 1996;43(3):338–46. https://doi.org/10.1037/0022-0167.43.3.338.
54. Brown S, Garino G, Taylor K, Price S. Debt and financial expectations: an individual and household level analysis. Econ Inq. 2003. https://doi.org/10.1093/ei/cbi008.
55. Lent RW, et al. Social cognitive predictors of academic interests and goals in engineering: utility for women and students at historically black universities. J Couns Psychol. 2005;52(1):84–92. https://doi.org/10.1037/0022-0167.52.1.84.
56. Hayward MLA, Forster WR, Sarasvathy SD, Fredrickson BL. Beyond hubris: how highly confident entrepreneurs rebound to venture again. J Bus Ventur. 2010;25(6):569–78. https://doi.org/10.1016/j.jbusvent.2009.03.002.
57. Aragon-Sanchez A, Baixauli-Soler S, Carrasco-Hernandez AJ. A missing link: the behavioral mediators between resources and entrepreneurial intentions. Int J Entrep Behav Res. 2017;23(5):752–68. https://doi.org/10.1108/IJEBR-06-2016-0172.
58. Etikan I, Musa SA, Alkassim RS. Comparison of convenience sampling and purposive sampling. Am J Theor Appl Stat. 2015;5(1):1–5.
59. Sedgwick P. Statistical question: convenience: convenience sampling. BMJ. 2013;347:1–3.

60. Liñán F, Chen Y-W. Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. Entrep Theory Pract. 2009;33(3):593–617.
61. Hair J, Risher J, Sarstedt M, Ringle C. When to use and how to report the results of PLS-SEM. Eur Bus Rev. 2019;31(1):2–24. https://doi.org/10.1108/EBR-11-2018-0203.
62. Sarstedt M, Ringle CM, Hair JF. Partial least squares structural equation modeling. In: Homburg C, Klarmann M, Vomberg A, editors. Handbook of market research. Cham: Springer; 2017.
63. Hair JF, Ringle C, Sarstedt M. PLS-SEM: indeed a silver bullet. J Mark Theory Pract. 2011;19(2):139–52.
64. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. J Mark Res. 1981;18(1):39–50.
65. Henseler J, Ringle V, Sinkovics R. The use of partial least squares path modeling in international marketing, vol. 20. Bingley: Emerald Group Publishing Limited; 2009. p. 277–319. https://doi.org/10.1108/S1474-7979(2009)0000020014.
66. Cohen J. Statistical power analysis for the behavioral sciences. 2nd ed. Mahwah: Lawrence Erlbaum Associates; 1988.
67. Podsakoff PM, Mackenzie SB, Lee J, Podsakoff NP. Common method biases in behavioral research : a critical review of the literature and recommended remedies. J Appl Psychol. 2003;88(5):879–903. https://doi.org/10.1037/0021-9010.88.5.879.
68. Hussain S, Imran Malik M. Towards nurturing the entrepreneurial intentions of neglected female business students of Pakistan through proactive personality, self-efficacy and university support factors. Asia Pac J Innov Entrep. 2018;12(3):363–78. https://doi.org/10.1108/apjie-03-2018-0015.
69. Manolova TS, Brush CG, Edelman LF, Shaver KG. One size does not fit all : entrepreneurial expectancies and growth intentions of US women and men nascent entrepreneurs. Entrep Reg Dev. 2012;5626(24):7–27. https://doi.org/10.1080/08985626.2012.637344.
70. Segal G, Borgia D, Schoenfeld J. Using social cognitive career theory to predict self-employment. New Engl J Entrep. 2002;5(2):47–56.
71. Bandura A. Self-efficacy: the exercise of control. New York: W H Freeman; 1997.
72. Shi L, Yao X, Wu W. Perceived university support, entrepreneurial self-efficacy, heterogeneous entrepreneurial intentions in entrepreneurship education: the moderating role of the Chinese sense of face. J Entrep Emerg Econ. 2020;12(2):205–30. https://doi.org/10.1108/JEEE-04-2019-0040.