Journal of Management World **2025**, 1:902-921
DOI: 10.53935/jomw.v2024i4.826

Unfolding the Antecedents of Entrepreneurial Sustenance: Evidence from Women Entrepreneurs in India

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Abstract. This research investigates the relationship between entrepreneurial self-efficacy (ESE) and sustenance. Using social cognitive theory (SCT) and self-determination theory (SDT) as theoretical underpinnings, a conceptual model is developed showing the relationships between ESE, decision-making, motivation, skills and competencies, relational support, knowledge, and sustenance of women entrepreneurs. A survey instrument was used to collect data from 396 respondents from the women entrepreneurs in the Dindigul district of southern Tamil Nadu, India. First, the measures' psychometric properties were tested using LISREL software for structural equation modeling. Second, hypothesized relationships were tested using PROCESS macros. The findings indicate (i) ESE is a significant predictor of entrepreneurial decision-making, motivation, and sustenance, (ii) entrepreneurial decision-making and motivation mediate the relationship between ESE and entrepreneurial sustenance, (iii) entrepreneurial knowledge moderates the relationship between ESE and entrepreneurial decision-making, and (iv) relational support (first moderator) and entrepreneurial skills (second moderator) moderate the relationship between motivation and entrepreneurial sustenance. The two-way interaction between ESE and entrepreneurial knowledge in influencing entrepreneurial decision-making and the three-way interaction between motivation, relational support, and skills and competencies in influencing entrepreneurial sustenance bring novelty to the model. To the best of our knowledge, this model's two-way interaction and three-way interaction of variables is the first of its kind in India, particularly about women entrepreneurs in India. It makes a pivotal contribution to entrepreneurship theory and practice.

Keywords: Entrepreneurial self-efficacy, Entrepreneurial sustenance, India, Motivation, Knowledge, Women entrepreneurs.

1. INTRODUCTION

Women entrepreneurship has garnered the attention of academic scholars in various countries over the last two decades (Fuentes-Fuentes et al., 2017; Lee et al., 2009; Madawala et al., 2023; Shakeel et al., 2020). Several studies conducted on women entrepreneurs worldwide include United Arab Emeritus (Gupta & Mirchandani, 2018), Canada (Hughes, 2006), India (Amrita et al., 2018; Arafat et al., 2020; Chhabra et al., 2020; Sanu et al., 2020), South Africa (Chirwa, 2008), United States (Loscocco & Robinson, 1991), and United Kingdom (Mukhtar, 1998). While research on entrepreneurship is exhaustive in general (Chen et al., 2022; Gopinath & Mitra, 2017; Linan & Fayolle, 2015; Martínez-Gregorio et al., 2021; Matricano, 2023; Nabi & Liñán, 2011; Newman et al., 2019), focus on women entrepreneurs is sporadic and scattered (Coleman & Kariv, 2014; Kazumi & Kawai, 2017; Madawala et al., 2023; Tlaiss, 2019). Especially in developing nations such as India, the number of women entrepreneurs is constantly increasing; it is necessary to unravel the antecedents of their sustenance in a competitive environment (Mozumdar et al., 2019). Unlike in the past, women worldwide have entered all professions that have historically been the sole domain of men (Ribeiro et al., 2021). While women have shattered the glass ceiling in developed nations and entered into entrepreneurship much earlier, in developing countries, it took longer. As a result, entrepreneurship research on women in developing nations is still in the embryonic stage, and there is a dearth of studies focusing on the cognitive process and the challenges they face in their entrepreneurial mission (Afshan et al., 2021; Mozumdar et al., 2022; Schmutzler et al., 2018; Tlaiss, 2019). Most importantly, little is known about how women entrepreneurial self-efficacy (ESE) leads to their entrepreneurial intentions and performance (Madawala et al., 2023). Contemporary researchers contend that there is a need to explore the relationship between women's ESE beliefs and their behavior, leading to entrepreneurial success (Bernoster et al., 2020; Crespo et al., 2018; McGee & Peterson, 2019). Some scholars argue that though women represent a more significant percentage of the world population, their contribution goes unnoticed and undervalued (Agarwal et al., 2022). The present study is conducted to fill the void by investigating the effect of women ESE on decision-making and entrepreneurial sustenance, especially in the context of Indian women entrepreneurs.

1.1. Rationale for the Present Study

Research on women entrepreneurship has received increasing attention from academicians and scholars over the last two decades (Madawala et al., 2023; Omran & Yousafzai, 2023; Pollack et al., 2012; Shakeel et al., 2020; Wang, 2018; Webster & Haandrikman, 2020). The rationale for the present study stems from three reasons. First, there is a dearth of studies linking ESE with sustainable performance or sustenance, especially about women entrepreneurs. Further, despite exhaustive research on women entrepreneurship in the Indian context (Amrita et al., 2018; Arafat et al., 2020; Chhabra et al., 2020; Lingappa et al., 2023; Sanu et al., 2020), little is known about the

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how entrepreneurial decision-making, knowledge, motivation, and relational support are linked to ESE and sustenance of women entrepreneurs. Second, women entrepreneurs are growing at a rapid rate in India, which is the country's number one in population; the increasing number of women entrepreneurs contributes to economic growth through the creation of employment opportunities (Chan & Mustafa, 2021; Chatterjee et al., 2019; Lingappa et al., 2023). Third, prior studies focused on antecedents of entrepreneurial intentions to start a business and assessing the sustenance of women-owned small businesses needed to be more varied and varied. This study attempts to fill the void by answering the following research questions (RQs):

RQ1: How does ESE affect women entrepreneurs' decision-making effectiveness, motivation, and sustenance?

RQ2: How does entrepreneurs' knowledge moderate the relationship between ESE and the decision-making effectiveness of women entrepreneurs?

RQ3: How do relational support (first moderator) and skills and competencies (second moderator) interact with motivation to influence the sustenance of women entrepreneurs?

2. THEORETICAL UNDERPINNINGS AND HYPOTHESES DEVELOPMENT

2.1. Theoretical Background

The Social Cognitive Theory (SCT) (Bandura, 1986) and self-determination theory (SDT) (Ryan & Desi, 2000) provide the theoretical background to this research. The basic tenet of SCT is that individuals engage in goal-directed behavior by interacting with the environment and regulating their behavior through control and reinforcement. Self-efficacy is an essential component of SCT, according to which individuals know to what extent they can perform given tasks. A high level of self-efficacy indicates self-confidence and ability to perform effectively (Bandura, 1997). Behavioral capabilities determine the extent to which an individual has the knowledge and skills to perform behavior. Self-efficacy and behavioral capabilities are significant factors in entrepreneurial decisions (Bandura, 2001). The crux of SCT is that the relationships between cognition and environmental events influence an individual's behavior (Wood & Bandura, 1989). Self-efficacy beliefs of individuals enable them to recognize their skills and competence to run businesses, identify opportunities stemming from the environment, and manage businesses successfully (Mozahem, 2021; Shinnar et al., 2014; Miao et al.,2017). ESE also helps entrepreneurs translate their ideas into actions (McGee & Peterson, 2019) and helps them make entrepreneurship a career choice (Wennberg et al., 2013). Prior studies have used SCT as a theoretical framework for explaining entrepreneurial success (Madawala et al., 2023; To et al., 2020).

The proponents of SDT (Ryan & Desi, 2000) argue that entrepreneurs attempt to enjoy autonomy and competence in their work, which motivates them to reach their goals. Women entrepreneurs in India prefer to run their businesses rather than work in industries because they emphasize autonomy and volition in motivation. Following the SCT self-efficacy beliefs, women entrepreneurs engage in starting ventures and derive satisfaction by running their businesses effectively. Since autonomy in decision-making and confidence in managing one's businesses are twin requirements of entrepreneurship, SDT is relevant in an entrepreneurial context.

We use both SCT and SDT to align the self-efficacy, motivation, decision-making, knowledge, skills, and relational skills that significantly influence the sustenance of women entrepreneurs, especially in the context of an emerging and developing nation, India.

2.2. Hypotheses Development

2.2.1. ESE and Entrepreneurial Sustenance

Self-efficacy, a construct from Social Cognitive Theory (SCT) (Bandura, 1986), refers to individual beliefs about their ability to perform and complete given tasks. These self-efficacy beliefs influence individuals' cognitive, motivational, affective, and decision processes (Bandura & Locke, 2003). Extant research reported that ESE is a precursor to entrepreneurial intention (Chen et al., 1998; Linan & Chen, 2009; Rauch & Hulsink, 2015; Shirokova et al., 2018; Yilmaz & Ataay, 2011; Zhao et al., 2005). Entrepreneurial success largely depends on individuals' confidence and belief in their ability to accomplish their set goals (Linan & Fayolle, 2015). Applying self-efficacy to entrepreneurship, several scholars on entrepreneurship argued that ESE significantly influences performance outcomes (McGee & Peterson,2019; Newman et al., 2019). When individuals can effectively estimate their cognitive abilities, set goals, and exert their efforts to meet goals, it is more likely that they achieve performance targets (Chen et al., 1998; Krueger & Dickson, 1994; Newman et al., 2019; Shen et al., 2021). In a recent study conducted among women entrepreneurs in the tourism industry in a developing nation, Sri Lanka, the researchers found that ESE positively affects firm performance (Madawala et al., 2023). Prior researchers have documented that high self-efficacy entrepreneurs tend to set challenging goals and exert their efforts to accomplish the goals, leading to successful performance (Baum & Locke, 2004; Hmieleski & Baron, 2008). Thus, based on available empirical evidence from the literature, we offer the following hypothesis:

H1: ESE is positively related to entrepreneurial sustenance.

2.2.2. ESE and Decision-Making Effectiveness

Entrepreneurs sometimes need to make better logical investing choices when navigating difficult circumstances, and decision-making becomes irrational (Andriamahery & Qamruzzaman, 2022). Further,

selecting one option from multiple alternatives in an uncertain environment requires challenging decision-making skills. An entrepreneur's success largely depends on the ability to make effective decisions; individuals with a high level of self-efficacy tend to possess decision-making skills even when available information is ambiguous.

Shepherd et al. (2015) pointed out that entrepreneurial decisions are characterized by uncertainty, time pressure, and unforeseen consequences. Entrepreneurs with high confidence in themselves can make opportunity assessments and decisions accordingly. Some scholars documented that most of the decisions of entrepreneurs are related to seizing opportunities and engaging in innovative behavior to sustain competitive advantage; decision-making plays a vital role in this process (Caines et al., 2019; Huarng & Ribeiro, 2014). Proactive behavior, innovation, and risk-taking are essential traits entrepreneurs possess, requiring decision-making skills (Ferreira et al., 2015; Frese & Gielnik, 2014; Neumeyer et al., 2018; Tolli & Schmidt, 2008). We argue that ESE is a precursor to effective decision-making, and based on the above arguments, we offer the following exploratory hypothesis.

H_2 ESE is positively related to decision-making effectiveness.

2.2.3. Decision-Making Effectiveness and Entrepreneurial Sustenance

The success of entrepreneurship largely depends on how effective the decisions made by entrepreneurs are (Shepherd et al., 2015). In a recent study conducted in China, researchers found that the psychological capital of entrepreneurs (self-efficacy, optimism, hope, and resilience) are antecedents to entrepreneurial success (Hu et al., 2022). Extant research reported a positive association between the effectiveness of decision-making and the success of ventures (Bird & Schjoedt, 2009; Gartner & Teague, 2020; Muller et al., 2023). Entrepreneurial decision-making effectiveness is reflected in their ability to exploit an opportunity, acquire adequate resources, and organize activities to achieve desired goals (Shane, 2003; Shepherd, 2015). Thus, based on the above arguments, we offer the following hypothesis.

H_3 Decision-making is positively related to entrepreneurial sustenance.

2.2.4. Decision-Making Effectiveness as a Mediator Between ESE and Entrepreneurial Sustenance

We argue in this research that ESE, in addition to its direct effect on entrepreneurial sustenance, indirectly influences decision-making. Self-efficacy beliefs of women entrepreneurs will enable them to make rational decisions based on available information that results in superior performance. Several past studies documented that entrepreneurial business success depends on evaluating the alternatives and selecting the better ones (Alsos & Ljunggren, 1998; Gatewood et al., 1995; Davidsson & Gruenhagen, 2021). In a recently conducted study on 181 small and medium-sized businesswomen in Pakistan, researchers found that self-confidence, risk-taking, and socio-cultural support influenced success (Khan et al., 2021). Thus, based on the above arguments, we offer the following hypothesis.

H_4 Decision-making effectiveness mediates the relationship between ESE and entrepreneurial sustenance.

2.2.5. ESE and Motivation

The success of any venture depends on how individuals are motivated to achieve desired results. Some of the previous researchers found that women entrepreneurs' motivation is one of the success factors (Kallas, 2019; Orhan & Scott, 2001). The relationship between self-efficacy and the internal motivation of entrepreneurs is understandable (Alam et al., 2019) because when entrepreneurs have a high level of confidence in their ability to reach goals, they are more likely to have intrinsic motivation to perform well. Studies conducted on university students documented that students with high self-efficacy tend to show higher motivation levels and entrepreneurial intention (Lang & Liu, 2019; Sun et al., 2020). Thus, we offer the following hypothesis based on intuitive logic and available empirical evidence.

H_5 ESE is positively related to motivation.

2.2.6. Motivation and Entrepreneurial Sustenance

Extant research reported the positive association of an individual's motivation to performance (Al-Jubari et al., 2019; Law et al., 2019), which also applies to women entrepreneurs. When motivated to excel, entrepreneurs are more likely to identify the opportunities available from the external environment and make quick investment decisions to capitalize on them (Viinikainen et al., 2017). Several studies in the past have provided empirical support that female entrepreneurs with motivation and risk-taking characteristics are successful (Al et al., 2016; Nurwahida, 2007). In a recent study conducted in China, researchers found that entrepreneurial motivation, the role of family, and social networks help reduce stress and increase performance (Gok et al., 2021). Thus, based on above arguments, we offer the following hypothesis.

H_6 Motivation is positively related to entrepreneurial sustenance.

2.2.7. Motivation as a Mediator Between ESE and Entrepreneurial Sustenance

In addition to the direct effect of ESE on entrepreneurial success, indirect effects through entrepreneurial

motivation also need to be understood in entrepreneurial research (Abdul Al & Mostafa, 2019). Individuals with high self-efficacy are more likely to exhibit intrinsic motivation to exert energies in completing given tasks and achieve planned targets. In a recent study conducted among 330 students from various disciplines in India, researchers found that learning motivation, innovation, and technological self-efficacy positively relate to entrepreneurial intention (Aboobaker et al., 2023). Though previous scholars have not investigated motivation as a mediator, we offer the following exploratory hypothesis.

$H_{7:}$ Motivation mediates the relationship between ESE and entrepreneurial sustenance.

2.2.8. Knowledge as a Moderator

Knowledge about business plays a vital role in the success of women's entrepreneurship. When individuals can apply new knowledge and methods to solve problems, they are more likely to succeed (Lee et al., 2022). Further, when women entrepreneurs start their business, the ability to identify the type of business and foresee potential problems in the startup process and the level of competition they face are crucial determinants of successful ventures. Apart from technical know-how, experience accumulated in the past to solve problems that may occur while running a business is essential to determining success. After starting a business, entrepreneurial strategies result in knowledge construction (Horst & Hitters, 2020), which helps expand knowledge gradually (Sun et al., 2020). In academic institutions, entrepreneurial education provides the foundation of knowledge required for startups and their success (Boubker et al., 2021).

In this study, knowledge creation, acquisition, and utilization are moderators in strengthening the relationship between ESE and decision-making. While self-efficacy beliefs positively impact entrepreneurs' decision effectiveness, the extent to which they utilize the knowledge acquired from experience and learning has the potential to increase the strength of the relationship between ESE and decision-making. Since, to the best of our knowledge, previous scholars have not investigated the moderating effect of knowledge, we offer the following exploratory moderation hypothesis.

$H_{2a:}$ Knowledge moderates the relationship between ESE and decision-making such that at higher (lower) levels of knowledge ESE results in higher (lower) decision-making effectiveness.

2.2.9. Rational Support, and Skills and Competencies as Moderators

The importance of relational support in enhancing the performance of women entrepreneurs has been documented in the literature (Gupta & Mirchandani, 2018; Lee et al., 2009; Tlaiss,2014; Welsh et al., 2018). In a study on 202 female entrepreneurs from 30 provinces in Japan, researchers provided empirical evidence supporting a strong and positive association of institutional support with ESE (Kazumi & Kawai, 2017). Though previous researchers have examined ESE, relatively few studies delve into the role of relational support in strengthening the relationship between motivated entrepreneurs and their success (Bulanova et al., 2016). Further, though the direct effect of entrepreneurial traits (innovation, risk-taking, and proactiveness) on entrepreneurial intention has been demonstrated by scholars, the moderating effect of these traits on the sustainable performance of entrepreneurs (Neumeyer et al., 2018; Tolli & Schmidt, 2008). Since the direct effects of entrepreneurial traits and relational support have been established, it will be interesting to see the moderating effect of these in influencing performance. In this study, we argue that while skills increase the strength of the relationship between motivation and performance, relational support from family members and friends will further increase the strength. To our knowledge, previous scholars have yet to investigate the three-way interaction between motivation, skills, and relational support in significantly affecting the sustenance of women entrepreneurs. Thus, we propose the following exploratory moderation hypothesis based on the studies on relational support (Phonthanukitithaworn et al., 2019) and entrepreneurial traits.

$H_{6a:}$ Relational support (first moderator) and skills (second moderator) interact with motivation such that at higher (lower) levels of skills, higher (lower) rational support interacts, motivation results in higher (lower) levels of entrepreneurial sustenance.

The conceptual model is presented in Figure 1.

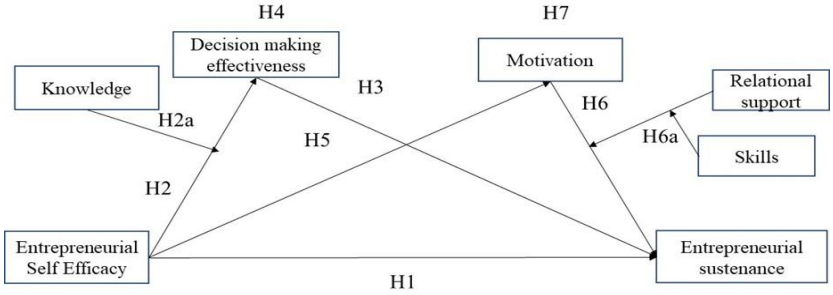


Figure 1: The conceptual model.

3. METHOD

3.1. Sample

We prepared a carefully crafted survey instrument which consists of two parts. Part I is related to the demographic profile of the respondents. Second part of the survey was related to the study variables.

Since the focus is on women entrepreneurs, we selected entrepreneurs from seven districts of Dindigul District of Tamil Nadu. We obtained permission from the Dindigul Multipurpose Social Service Society (DMSSS) to collect data from the women entrepreneurs. Total number of women entrepreneurs in seven districts was 586. We followed systematic stratified random sampling to select the respondents. The sample selected is as follows: Dindigul (58 out of 86) out of 86; Natham (62 out of 90); Nilakkotai (70 out of 102), Palani (58 out of 87); Vedasandur (46 out of 69); Oddanchatram (63 out of 94); Attur (39 out of 58). The total number of respondents was 396 out of 586 (67.5%). Since we personally administered surveys, all the 396 surveys were complete. To select non-response bias, we compared the first fifty respondents with the last fifty respondents and found no statistical differences between these two groups.

3.2. Demographic Profile

This study focused on women entrepreneurs. Out of 394 women, over 91% were aged over 35 years. Around 80% started their own businesses whereas 20% had continued businesses inherited from their families. Around 92% of them had experience of over 10 years. Other demographics and preliminary details about the sources of funds, investments made, type of family, and educational background were mentioned in Table 1.

Table 1. Demographic profile of respondents.

Variables	Category	Frequency	Percentage
Age (in years)	Below 25	2	0.5
	26-35	34	8.6
	36-45	185	47.0
	46 and above	173	43.9
Marital status	Married	189	48.0
	Unmarried	91	23.1
	Divorced	49	12.4
	Widow	65	16.5
Education	Up to 8th grade	75	19.0
	Senior secondary school	116	29.4
	Undergraduate bachelor's degree	109	27.7
	Professional and other degrees	94	23.9
Family type	Nuclear	242	61.4
	Extended (joint family)	152	38.6
Family size	Below 3	119	30.2
	4-6	256	65.0
	6-9	14	3.6
	Above 9	5	1.3
Location	Rural	178	45.2
	Urban	69	17.5
	Semi-urban	147	37.3
Motivating persons	Friends	67	17.0
	Family members	182	46.2
	Self	128	32.5
	Others	17	4.3
Training	Yes	344	87.3
	No	50	12.7
Sector	Product-based	94	23.9
	Service-based	63	16.0
	Processing raw material	134	34.0
	Both product and service based	103	26.1
Experience	Below 5 years	5	1.3
	6-10 years	28	7.1
	11-15 years	304	77.2
	Over 16 years	57	14.5
Reasons for choosing entrepreneurship	Heredity	76	19.3
	Low investment	67	17.0
	Experience	208	52.8
	Market facility	21	5.3
	Less competition	22	5.6
Nature of business	Inherited	75	19.0
	Started by self	319	81.0
Investment	Less than $250,000 ($ 3000)	20	5.1
	Rs 250,000 – Rs 500,000 ($3000 - $6000)	20	5.1
	Rs 500,000 – Rs 750,000 ($6000 - $9000)	51	12.9
	Rs.750,000 – Rs. 1,000,000 ($9000 - $12,000)	107	27.2

	Rs. 1,000,000 – Rs. 1,250,000 ($12,000 - $ 15,000)	147	37.3
	Rs. 1,250,000 – Rs. 1,500,000 ($15,000 - $18,000)	49	12.4
Sources of finance	Commercial banks	145	36.8
	Self-help groups	119	30.2
	Private finance	49	12.4
	Family support	37	9.4
	Savings	34	8.6
	Others	10	2.5
Frequency of selling product/ service in market	Daily	145	36.8
	Two times in a week	119	30.2
	Once a week	49	12.4
	Once in fortnight	37	9.4
	Once a month	34	8.6
	Depending on the demand (others)	10	2.5

3.3. Measures

A survey instrument was developed and distributed among the women entrepreneurs in southern Tamil Nadu. The measures of the seven constructs used in this study were adapted from the previously tested well-established sources. A five-point Likert scale ('5' = strongly agree; '1' = strongly disagree) was used to measure the constructs. The constructs, indicators, and sources of these constructs were presented in Table 2.

Table 2: Confirmatory factor analysis.

Constructs and the Sources of the Measures	**Alpha**	**CR**	**Standardized Loadings (Λ_{yi})**	**Reliability (Λ^2_{yi})**	**Variance (Var(E_i))**	**Average Variance-Extracted Estimate $\Sigma(\Lambda^2_{yi}) / [(\Lambda^2_{yi}) + (Var(E_i))]$**
Entrepreneurial self-efficacy [Bakker et al., 2021]	0.79	0.87				0.57
I believe that building an innovative environment involves encouraging others to try a new idea or to take innovative action.			0.76	0.58	0.42	
I believe that initiating investor relationships is necessary to find sources of funding for their venture.			0.77	0.59	0.41	
I believe that defining core purpose involves making vision clear to others			0.75	0.56	0.44	
I am capable of tolerating ambiguity and uncertainty in the start-up venture.			0.78	0.61	0.39	
I believe that developing critical human resources is important in a start-up venture.			0.73	0.53	0.47	
Knowledge (Lee et al., 2022)	0.78	0.86				0.56
I try to introduce new knowledge or methods to solve unsatisfactory problems.			0.74	0.55	0.45	
I apply (identify, connect, and combine) valuable knowledge I have to start a business			0.79	0.62	0.38	
I use my experience accumulated in the past to start a business or solve problems that occur when starting a business			0.71	0.50	0.50	
I have specialized expertise in technical Know-how.			0.75	0.56	0.44	
I am a levering personal accumulation of knowledge, skills, and relationship.			0.72	0.52	0.48	
Decision-making effectiveness (Scott & Bruce, 1995)	0.75	0.87				0.57
I double-check my information sources to be sure I have the right facts before making a decision			0.73	0.53	0.47	
I explore all of my options before making a decision			0.80	0.64	0.36	
I make decisions in a logical and systematic way			0.74	0.55	0.45	
My decision-making requires careful thought			0.77	0.59	0.41	
When making a decision, I consider various options in terms of a specific goal			0.72	0.52	0.48	
Motivation (Solesvik, 2013)	0.73	0.85				0.53
Most people invest in their own small or medium-sized enterprise and its management a desirable career choice.			0.71	0.50	0.50	
Most people start their own business, because they want to be free and independent			0.73	0.53	0.47	

Most people their own business, because they have good ideas and want to realize them			0.72	0.52	0.48	
Most people start their own business to be better off financially			0.76	0.58	0.42	
Most people start their own business, because they want to be successful			0.72	0.52	0.48	
Entrepreneurial skills (Alvarez-Torres et al., 2019; Fillis & Rentschler, 2010; Kavana & Puspitowati, 2021; Rosique-Blasco et al., 2016)	0.79	0.86				0.60
I always try to take the initiative in every situation			0.75	0.56	0.44	
I am forward looking in my approach.			0.71	0.50	0.50	
I will be willing to take a certain amount of risk.			0.79	0.62	0.38	
I considered risk taking is a positive attribute			0.78	0.61	0.39	
I always creative in my methods of operation			0.81	0.66	0.34	
I am constantly searching about new ways of doing work			0.73	0.53	0.47	
Relational support [Turker & Selcuk, 2009]	0.77	0.90				0.63
If I decide to be an entrepreneur, my family members support me.			0.87	0.76	0.24	
If I decide to be an entrepreneur, my friends support me.			0.76	0.58	0.42	
My Family member's encouragement makes me do business.			0.72	0.52	0.48	
My family members help me to Self-evaluation management skills/ knowledge in business.			0.79	0.62	0.38	
If I want to start business I receive support from local organizations			0.83	0.69	0.31	
Entrepreneurial Sustenance [Bosma et al., 2004; Fatoki, 2011]	0.76	0.88				0.59
I sustained because of increase in sales and profitability ever since I started my business.			0.76	0.58	0.42	
I sustain because I find ways to develop new products and processes			0.77	0.59	0.41	
I sustain because I reinvest more than fifty percent of profits in the business.			0.81	0.66	0.34	
I sustain because I offer high quality of products and services			0.74	0.55	0.45	
I sustain because I am committed to social responsibility.			0.78	0.61	0.39	

4. ANALYSIS AND FINDINGS

4.1. Measurement Model and Confirmatory Factor Analysis (CFA)

Following the recommendation of Anderson and Gerbing (1988), we had two-step process. We checked the measurement model first and tested the structural model. We used LISREL software of structural equation modeling and did confirmatory factor analysis (CFA) (see Table 2).

As shown in Table 2, the factor loadings for all the indicators are over 0.70 (ranged between 0.71 and 0.82). The reliability coefficient (Cronbach's alpha) for all seven constructs were over 0.70 (ranged between 0.73 and 0.79). The composite reliability (CR) values are over 0.70 (ranged between 0.85 and 0.90). Further, the average variance extracted (AVE) estimates for all the seven constructs were greater than 0.50 (ranged between 0.53 and 0.60). These statistics vouch for discriminant validity and reliability of the constructs and consistency of the measures (Hair et al., 2018).

4.2. Convergent Validity, Discriminant Validity, And Multicollinearity

Discriminant validity is established when the square root of AVEs exceeds the correlations between the variables (Fornell & Larcker, 1981). By observing the correlations between the variables (see Table 3), we can see that the square root of AVEs of the variables exceed the correlations between the variables. Highest correlation was 0.37 (between skills and entrepreneurial sustenance), and the lowest correlation was 0.13 (between relational support and entrepreneurial sustenance). The square root of AVEs was higher than the correlations between the variables, thus vouching for discriminant validity. For example, the correlation between decision-making and skills was 0.25, which is lower than the square root of their AVEs of 0.75 and 0.77 respectively. Similarly, for all the variables, the AVEs were higher than the correlations between the respective variables. These statistics provide support for discriminant validity between the variables in this study (Fornell & Larcker, 1981).
Table 3 presents the means, standard deviations, and zero-order correlations.

Table 3. Descriptive Statistics: Means, standard deviations, and zero-order correlations.

	Mean	Standard Deviation	1	2	3	4	5	6	7	Alpha	CR	AVE
1. Entrepreneurial self-efficacy	3.93	0.72	**0.75**							0.79	0.87	0.57
2. Decision-making effectiveness	3.76	0.64	0.23**	**0.75**						0.78	0.87	0.57
3. Knowledge	3.75	0.95	0.26**	0.26**	**0.74**					0.78	0.86	0.56
4. Motivation	3.72	0.78	0.27**	0.22**	0.17**	**0.73**				0.73	0.85	0.53
5. Relational support	4.12	0.74	0.23**	0.32**	0.35**	0.31**	**0.79**			0.77	0.90	0.63
6. Skills and competencies	3.68	0.89	0.29**	0.25**	0.52**	0.15**	0.32**	**0.77**		0.79	0.86	0.60
7. Entrepreneurial sustenance	3.54	0.92	0.20**	0.19**	0.28**	0.04	0.13**	0.37**	**0.77**	0.76	0.88	0.59

The goodness-of-fit statistics of CFA reveal that the seven-factor model fit the data well ($\chi 2/df = 3.7$; Root mean square error of approximation (RMSEA) = 0.045; Root mean square residual (RMR) = 0.053; Standardized RMR = 0.058; Comparative Fit Index (CFI) = 0.924; Goodness of fit index (GFI) = 0.904). Since the goodness of fit indices (RMSEA < 0.08; CFI > 0.90; and other indices) vouch for the validity and reliability of the constructs used in this research (MacCallum & Browne, 1993).

The preliminary analysis of zero-order correlations between the variables (see Table 3) reveals that correlations between the variables were less than 0.75 suggesting that multicollinearity is not a problem in this study (Tsui et al., 1997). Further, we found the variance inflation factor (VIF) values for all the variables were less than 5, suggesting that multicollinearity is not a problem with the data (Hair et al., 2018).

4.3. Common Method Bias (CMB)

As CMB is a potential problem with the survey-based research, it is important to test for CMB. We performed three statistical checks for CMB. First, by following the suggestions of Podsakoff et al. (2003), we checked CMB by performing Harman's single-factor test and found that a single factor accounted for less 27.85 percent of variance, indicating that CMB is not a problem in this study. Second, we performed latent factor check by subjecting all the indicators into one construct each time and observed the inner VIF values. We found that VIF values were less than 3.3, suggesting that data was not having any pathological collinearity problem in this research and the data was not infected by CMB (Kock, 2015). Third, found that the goodness of fit statistics of one-factor model ($\chi 2/df = 5.7$ Root mean square error of approximation (RMSEA) = 0.137; Root mean square residual (RMR) = 0.163; Standardized RMR = 0.152; Comparative Fit Index (CFI) = 0.624; Goodness of fit index (GFI) = 0.745) were inferior to the goodness of fit statistics for seven-factor model. These tests suggest that CMB is not a problem in this research.

4.4. Hypotheses Testing

Since this model is complex, we used different models of Hayes (2018) PROCESS macros. We used model # 4 for testing H1-H4, and H5-H7. We used model # 1 for testing two-way interaction (H2a), and we used model # 3, for testing three-way interaction (H6a).

4.4.1. Testing H1-H4

Table 4 captures the results of testing H1-H4.

Table 4. Testing H1, H2, H3, and H4.

Variables	**DV= Entrepreneurial Sustenance**				**DV = Decision-making H2**				**DV = Entrepreneurial Sustenance**			
	Step 1				**Step 2**				**Step 3**			
	Coeff	**se**	**t**	**p**	**Coeff**	**se**	**t**	**p**	**Coeff**	**se**	**t**	**p**
Constant	3.7425	0.2413	15.5127	0.0000	3.6204	0.2444	14.8126	0.0000	3.1977	0.2982	10.7248	0.0000
ESE H1	0.2064	0.0509	4.0530	0.0001	0.2414	0.0516	4.6798	0.0000	0.1701	0.0518	3.2842	0.0011
Decision-making effectiveness H3									0.1505	0.0493	3.0503	0.0024
R-square	0.21				0.23				0.25			
F	16.42				21.90				13.03			
df1	1				1				2			
df2	392				392				391			
p	0.0000				.0000				.0000			

Total Effect

	Total Effect	se	t	p	LLCI	ULCI
	0.2064	0.0509	4.0530	0.0001	0.1063	0.3065

Direct Effect

	Direct Effect	se	t	p	LLCI	ULCI
ESE→ EI	0.1701	0.0518	3.2842	0.0011	0.0683	0.2719

Bootstrapping Indirect Effect (H4)

	Indirect Effect	BOOT se	BOOT LLCI	BOOT ULCI
ESE→Decision-making effectiveness→ Entrepreneurial Sustenance	0.0363 (0.2414 x 0.1505 = 0.0363)	0.0167	0.0085	0.0739

Note: N = 394; Boot LLCI, = Bootstrapping lower limit confidence interval, Boot ULCI = Bootstrapping upper limit confidence interval. The results were based on 20,000 bootstrapping samples [$p < .05$]. It is recommended to use four decimal digits because some values may be very close to zero.
Values in bold represent significance of regression coefficients supporting hypotheses.

Step 1 from Table 4 shows that the regression coefficient of ESE on entrepreneurial sustenance was positive and significant ($\beta = 0.21$, $p < 0.001$). The results based on 20,000 bootstrap samples show that the 95 percent bias-corrected confidence interval (BCCI) was 0.1063 (LLCI) and 0.3065 (ULCI). These results support H1 that ESE is a significant predictor of entrepreneurial sustenance.

Hypothesis 2 proposes that ESE is positively related to decision-making. The regression coefficient of ESE on decision-making (step 2, Table 4) was positive and significant ($\beta = 0.24$; $p < 0.001$), thus supporting H2.

Hypothesis 3 posits that decision-making is positively related to entrepreneurial sustenance. Step 3 (Table 4), shows that the regression coefficient of decision-making on entrepreneurial sustenance was positive and significant ($\beta = 0.15$; $p < 0.01$), thus supporting H3.

Hypothesis 4 states decision-making mediates the relationship between ESE and entrepreneurial sustenance. The indirect effect (as shown in the bottom of the table 4) was 0.0363 (Boot se = 0.0167; Boot LLCI = 0.0085; Boot ULCI = 0.0739) and since zero was not contained in the Boot LLCI and Boot ULCI, the results support the mediation hypothesis (i.e., H4).

The direct effect (0.1701) and indirect effect (0.0363) gives the total effect (0.2064). As shown in the bottom of Table 4, the indirect effect is a product of regression coefficient of ESE on decision-making (0.2414) and regression coefficient of decision-making on entrepreneurial sustenance (0.1505) [0.2064 x 0.1505 = 0.0363]. The indirect effect of ESE→ decision-making →entrepreneurial sustenance was significant, thus corroborating support to H4.

4.5. Testing H2a (Two-Way Interaction)

We used Model # 1 of Hayes (2018) PROCESS macros to check the two-way interactions and presented the results in Table 5.

Table 5. Testing of H2a (two-way interaction) [Model number 1 in PROCESS macros].

	DV= Decision-making effectiveness					
Variables	**Coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
Constant	-6.4972	1.8871	-3.44280	0.0006	-5.9181	-2.0763
ESE	0.2651	0.0625	4.24020	0.0000	1.2875	2.2428
Knowledge	0.3276	0.0769	4.25670	0.0000	1.3288	2.3264
ESE x Knowledge	0.3561	0.0883	4.06290	0.0001	0.4470	1.2852
R-square	0.36					
F	19.97					
df1	3					
df2	390					
p	.0000					

Table 5. Continue…

Conditional effects of the focal predictor (ESE) at values of moderator (Knowledge)						
Knowledge	**Effect**	**se**	**t**	**p**	**LLCI**	**ULCI**
Low	0.3659	0.0680	5.3770	0.0000	0.2321	0.4996
Medium	0.1488	0.0519	2.8684	0.0043	0.0468	0.2508
High	-0.0653	0.0798	-0.8177	0.4140	-0.2222	0.0917
Moderator value(s) defining Johnson-Neyman significance region(s)						
		Value	% below		% above	
		4.8009	69.2893		30.7107	

Hypothesis 2a posits that knowledge interacts with ESE to influence decision-making positively. The regression coefficient of the two-way interaction was significant ($\beta_{\text{ESE x knowledge}} = 0.87$; $p < 0.001$; Boot LLCI = 0.4470; Boot ULCI = 1.2852). The conditional effects of the focal predictor (ESE) at values of moderator (knowledge), and the moderator value(s) defining Johnson-Neyman significance region(s) were also mentioned in the bottom of Table 5.

The visual presentation of two-way interaction was shown in Figure 2.

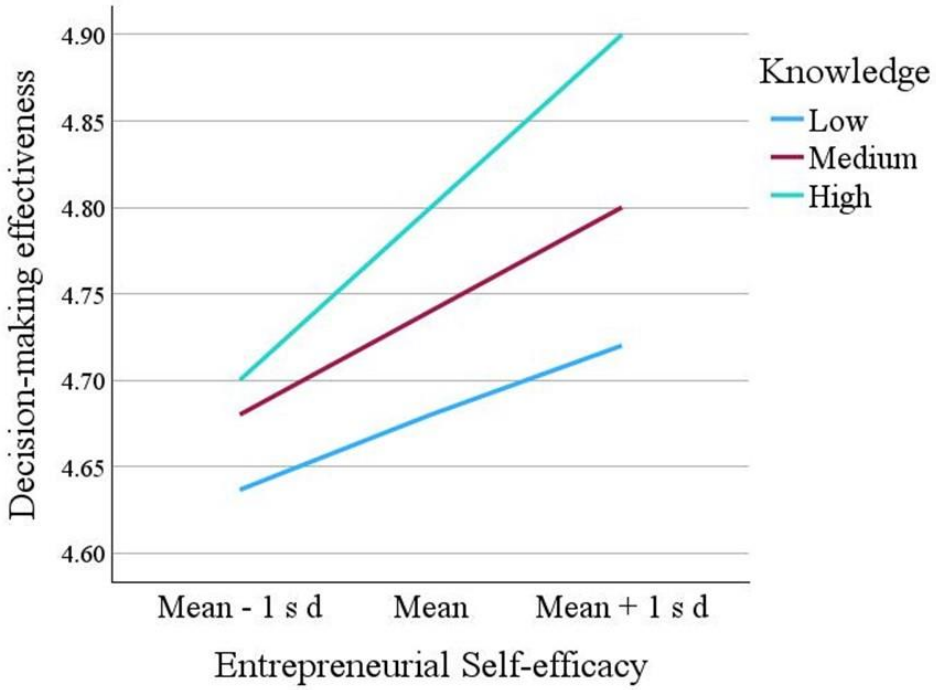


Figure 2: Knowledge as a moderator between entrepreneurial self-efficacy and decision-making.

As can be seen in Figure 2, at higher level of knowledge, the effect of ESE on decision-making was greater when compared to lower level of knowledge. Further, when ESE is increasing, the multiplicative effect is more visible on decision-making as the differences in the slopes of curves are increasing. These curves render support to moderation hypothesis (H2a).

4.6. Testing H5-H7

Table 6 captures the results of testing H5-H7.

Table 6. Testing H5, H6 and H7.

Variables	**DV= Entrepreneurial Sustenance**				**DV = Motivation H5**				**DV = Entrepreneurial Sustenance**			
	Step 1				**Step 2**				**Step 3**			
	Coeff	**se**	**t**	**p**	**Coeff**	**se**	**t**	**p**	**Coeff**	**se**	**t**	**p**
Constant	3.7425	0.2413	15.5127	0.0000	3.0778	0.2925	10.5221	0.0000	3.7757	0.2735	13.8033	0.0000
ESE H1	0.2064	0.0509	4.0530	0.0001	0.1489	0.0264	5.6320	0.0000	0.2101	0.0530	3.9644	0.0001
Motivation H6									0.1426	0.0493	2.9614	0.0013
R-square	0.21				0.27				0.21			
F	16.42				31.71				8.22			
df1	1				1				2			
df2	392				392				391			
p	0.0000				.0000				.0000			
Total Effect												
			Total Effect		se	t	p		LLCI	ULCI		
			0.2064		0.0509	4.0530	0.0001		0.1063	0.3065		
Direct Effect												
			Direct Effect		se	t	p		LLCI	ULCI		
ESE→ Entrepreneurial Sustenance			0.1852		0.0530	3.4943	0.0001		0.1059	0.3143		
Bootstrapping Indirect Effect (H7)												
			Indirect Effect		BOOT se	BOOT LLCI	BOOT ULCI					
ESE→Motivation→ Entrepreneurial Sustenance			0.0212 (0.1489 x 0.1426 = 0.0212)		0.0167	0.0064	0.0547					

Note: N = 394; Boot LLCI, = Bootstrapping lower limit confidence interval, Boot ULCI = Bootstrapping upper limit confidence interval. The results were based on 20,000 bootstrapping samples [$p < .05$]. It is recommended to use four decimal digits because some values may be very close to zero.
Values in bold represent significance of regression coefficients supporting hypotheses.

Step 1 from Table 6 (is same as Step 1 in Table 4) shows that the regression coefficient of ESE on entrepreneurial sustenance was positive and significant ($\beta = 0.21$, $p < 0.001$).

Hypothesis 5 proposes that ESE is positively related to motivation. The regression coefficient of ESE on motivation (step 2, Table 6) was positive and significant ($\beta = 0.15$; $p < 0.001$), thus supporting H5.

Hypothesis 6 posits that motivation is a significant predictor of entrepreneurial sustenance. Step 3 (Table 6) shows that the regression coefficient of motivation on entrepreneurial sustenance was positive and significant ($\beta = 0.14$; $p < 0.01$), thus supporting H6.

Hypothesis 7 states motivation mediates the relationship between ESE and entrepreneurial sustenance. The indirect effect (as shown in the bottom of the table 6) was 0.0212 (Boot se = 0.0167; Boot LLCI = 0.0064; Boot ULCI = 0.0547) and since zero was not contained in the Boot LLCI and Boot ULCI, the results support the mediation hypothesis (i.e., H7).

4.7. Testing H6a (three-way interaction hypothesis)

To test H3a we used model 3 of Hayes (2018) PROCESS macros and presented the results in Table 7.

Table 7. Testing of H6a (three-way interaction) [Model number 3 of PROCESS macros].

	DV= Entrepreneurial Sustenance					
Variables	**Coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
Constant	9.2628	0.9500	9.7501	0.0000	7.3953	11.1303
Motivation	0.1907	0.0605	3.1519	0.0017	0.0718	0.3096
Relational support	0.2052	0.0337	6.0890	0.0000	0.1195	0.2519
Skills	0.2611	0.0554	4.7129	0.0000	0.1652	0.3731
Motivation x Relational support	0.3486	0.0825	4.2239	0.0000	0.1864	0.5109
Motivation x Skills and competencies	0.1460	0.0457	3.1947	0.0016	0.0567	0.2362
Relational support x Skills and competencies	0.1261	0.0424	2.8503	0.0034	0.0428	0.2097
Motivation x Relational support x Skills and competencies H6a	0.3628	0.0761	4.7684	0.0000	0.2132	0.5123
R-square	0.25					
F	18.68					
df1	7					
df2	386					
p	.0000					

Table 7. Continue.

	Conditional effects of the focal predictor (Motivation) at values of moderators (Relational support x Skills)						
Relational support	**Skills and competencies**	**Effect**	**se**	**t**	**p**	**LLCI**	**ULCI**
Low	Low	-0.4358	0.0816	-5.3396	0.0000	-0.5963	-0.2753
Low	Medium	-0.0317	0.0443	-0.7164	0.4742	-0.1187	0.0553
Low	High	0.3529	0.0662	5.3305	0.0000	0.2227	0.4831
Medium	Low	-0.3770	0.0863	-4.3675	0.0000	-0.5467	-0.2073
Medium	Medium	-0.0630	0.0410	-1.5378	0.1249	-0.1436	0.0176
Medium	High	0.2357	0.0608	3.8760	0.0001	0.1162	0.3553
High	Low	-0.3181	0.1181	-2.6934	0.0074	-0.5504	-0.0859
High	Medium	-0.0944	0.0556	-1.6988	0.0902	-0.2036	0.0149
High	High	0.1186	0.0850	1.3944	0.1640	-0.0486	0.2857
	Moderator value(s) defining Johnson-Neyman significance region(s)						
			Value	% below		% above	
			4.8307	70.3046		29.6954	

Hypothesis 6a is related to interaction between motivation, relational support (first moderator), and skills (second moderator) influencing entrepreneurship sustenance. The regression coefficient of the three-way interaction was significant ($\beta_{\text{motivation x relational support x skills}} = 0.36$; $p < 0.001$; Boot LLCI = 0.2132; Boot ULCI = 0.5123). Conditional effects of the focal predictor (Motivation) at values of moderators (relational support x skills), and moderator value(s) defining Johnson-Neyman significance region(s) were mentioned in the bottom of Table 7. These results support three-way interaction hypothesis (H6a).

The visual presentation of three-way interaction was shown in two panels of Figure 3.

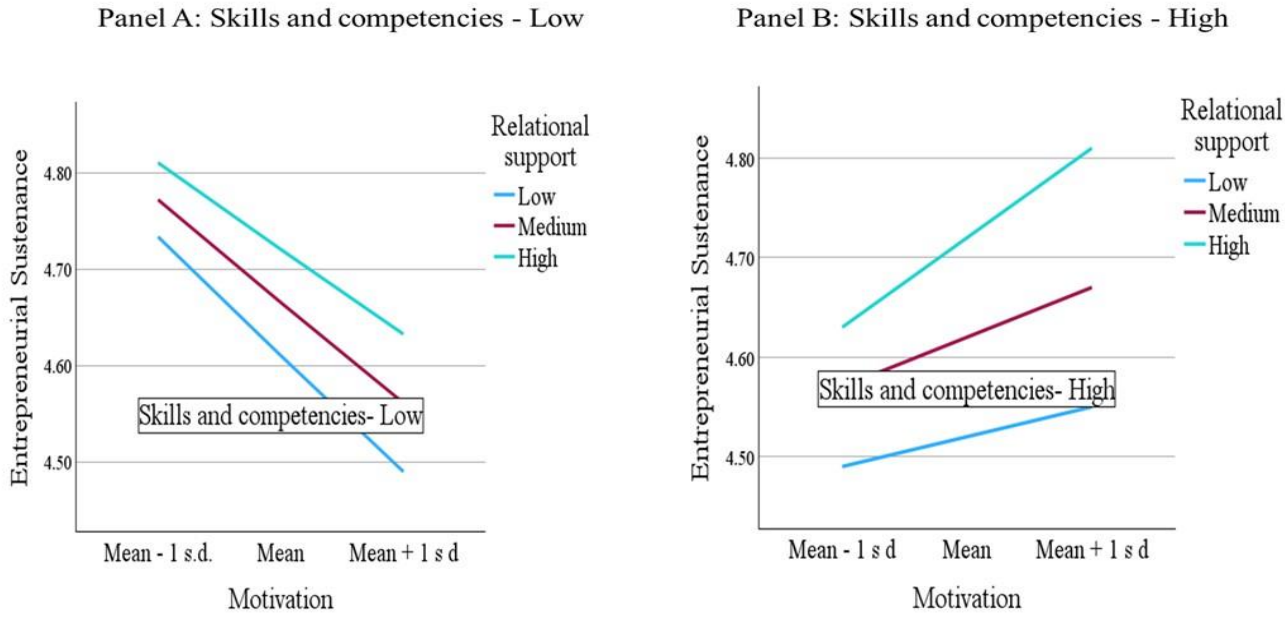


Figure 3. Panel A: Relationship support moderating between motivation and entrepreneurial sustenance at Skills and competencies – Low.
Panel B: Relationship support moderating between motivation and entrepreneurial sustenance at Skills and competencies – High.

Panel A (Figure 3) shows the moderating effect of relational support and motivation on entrepreneurial sustenance, at different levels of skills of entrepreneurs. As can be observed from Figure 3 (Panel A), the moderating effect of relational support in the relationship between motivation and entrepreneurial sustenance when skills are 'low'. Though higher relational support results in increase in entrepreneurial sustenance, low skills suppress the sustenance even when entrepreneurs' level of motivation increases from 'low' to 'high'. However, when we see Panel B (Figure 3), the upward sloping curves show that the multiplicative effect of relational support and motivation results in increased entrepreneurial sustenance. These figures render support to the three-way interaction hypothesis (H6a).
The empirical model was presented in Figure 4.

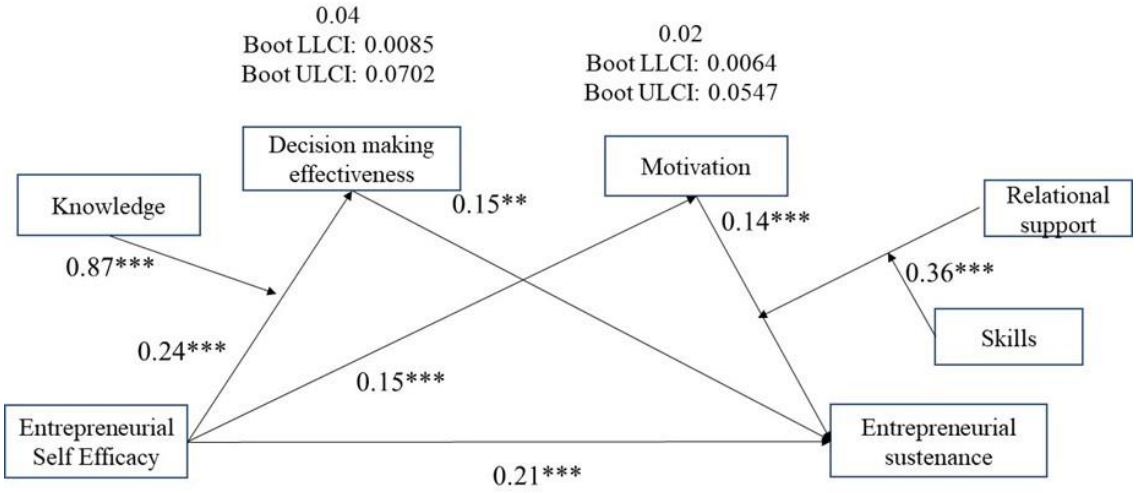


Figure 4. Empirical model.

5. DISCUSSION

This research aims to investigate the relationship between ESE and the sustenance of women entrepreneurs in India. Data were collected from 396 female entrepreneurs from southern India and analyzed using PROCESS macros. The findings from this study validated the conceptual model.

First, the findings support ESE's positive association with women entrepreneurs' sustenance (Hypothesis 1). This finding aligns with the studies from the literature that documented the positive impact of ESE on entrepreneurial intention (Chen et al., 1998; Linan & Chen, 2009; Rauch & Hulsink, 2015; Shirokova et al., 2018; Yilmaz & Ataay, 2011; Zhao et al., 2005) and sustenance (Shakeel et al., 2020). Second, the results indicate that ESE is a precursor to the decision-making effectiveness of women entrepreneurs (Hypothesis 2); findings corroborate with several studies in the past (Ferreira et al., 2015; Frese & Gielnik, 2014; Neumeyer et al., 2018; Tolli & Schmidt, 2008). This result is not surprising because it is expected that women entrepreneurs with high self-efficacy tend to

make effective decisions. Third, the results provide support for the positive association of decision-making effectiveness with sustenance (Hypothesis 3), concurring with the findings from other studies in the literature (Bird & Schjoedt, 2009; Gartner & Teague, 2020; Muller et al., 2023). While these are more or less self-explanatory, we hypothesized that these would provide more robust support for the results from previous researchers.

The fourth key finding is the role of decision-making effectiveness as a mediator between ESE and the sustenance of women entrepreneurs (Hypothesis 4). Though previous studies have not investigated the mediation effect, the direct relationships provide evidence for this mediation (Alsos & Ljunggren, 1998; Davidsson & Gruenhagen, 2021; Gatewood et al., 1995). Fifth, this research supported the idea that ESE motivates women's entrepreneurship (Hypothesis 5), the finding aligning with recent studies (Lang & Liu, 2019; Sun et al., 2020). Individuals with high levels of self-efficacy get intrinsic motivation to perform well in their tasks. Further, people with higher confidence in their ability to capitalize on the opportunities are more motivated to engage in innovation than those with low confidence in their abilities. Seventh, the results support the positive effect of motivation on the sustenance of women entrepreneurs (Hypothesis 6). Though the relationship between motivation and entrepreneurial performance was not exhaustively studied, some evidence is available from the literature (Gok et al., 2021; Viinikainen et al., 2017). The eighth key finding is the indirect effect of ESE on the sustenance of women entrepreneurs through motivation (Hypothesis 7), which aligns with one study conducted sometime back (Abdul Al & Mostafa, 2019).

Ninth, this research supports the moderation of entrepreneurs' knowledge in strengthening the relationship between ESE and decision-making quality (Hypothesis 2a). A literature review does not show any evidence of prior studies to vouch for this result, but the direct effect of knowledge on motivation is evidenced by some recent researchers (Boubker et al., 2021; Horst & Hitters, 2020). It is understandable that the higher the level of entrepreneurial knowledge acquired and accumulated by women entrepreneurs, the more likely their self-efficacy beliefs combined with knowledge result in high-quality decision-making. The tenth finding from this research is the double moderation effect of relational support (first moderator) and skills and competencies (second moderator) in strengthening the relationship between the motivation and sustenance of women entrepreneurs (Hypothesis 6a). Though previous scholars did not investigate the three-way interaction effect, the direct effects of relational support, skills, and competencies in increasing performance have been established (Gupta & Mirchandani, 2018; Lee et al., 2009; Neumeyer et al., 2018; Tlaiss,2019; Tolli & Schmidt, 2008; Welsh et al., 2018). Thus, to sum up, the conceptual model built on SCT and SDT validated the hypothesized relationships.

5.1. Theoretical Contributions

The findings from this study make several contributions to entrepreneurship theory, particularly about women's entrepreneurship in developing and emerging nations such as India. First, the proposed model highlights the importance of ESE as a critical determinant of entrepreneurial decision-making, motivation, and sustainable performance. Though most of the research on entrepreneurship focused on entrepreneurial intention, relatively few studies concentrated on entrepreneurs' sustenance in assessing performance. Our study broadens literature by extending the studies beyond entrepreneurial intention. Second, as opposed to most studies that delved into entrepreneurship in general, a relatively small number of studies focused on women entrepreneurs. Our study adds to the literature on women's entrepreneurship. Third, most studies were conducted in developed countries, and relatively fewer studies were skewed toward developing countries. Thus, this research's context, purpose, and concentration add to the growing literature on entrepreneurship.

The fourth essential contribution of this study is the positive effect of ESE on decision-making effectiveness and the indirect effect of ESE on the sustenance of women entrepreneurs through decision-making effectiveness. Fifth, the entrepreneurial knowledge as a moderator that strengthens the relationship between ESE and decision-making effectiveness adds to the literature on entrepreneurship. Sixth, in addition to the positive effect of motivation on the sustenance of women's entrepreneurship, the mediation of motivation in the relationship between ESE and sustenance extends the scope of research on entrepreneurship.

The seventh pivotal contribution is the three-way interaction between motivation, relational support, and skills and competencies in influencing women entrepreneurs' sustenance. To our knowledge, the interaction of relational support (first moderator) and skills and competencies (second moderator) with motivation to positively influence women's entrepreneurial sustenance has been investigated for the first time, making a unique contribution to the bourgeoning literature on entrepreneurship. To sum up, riding on the underpinnings of SCT and SDT, this study provides valuable insights into women entrepreneurship in India.

5.2. Practical Contributions

These findings offer insights into women's entrepreneurship sustenance in a developing country perspective. First, our results demonstrate that self-efficacy is a precursor to women entrepreneurs' decision-making, motivation, and sustenance. This study is helpful for individuals who want to start businesses as it provides underlying factors for sustenance. Second, as women entrepreneurs are proliferating in India, this study helps the incumbents understand the fundamentals of achieving success in their ventures. Since entrepreneurial knowledge plays a vital role in success, educational institutions include entrepreneurship in the curricula so that the students gain the knowledge necessary for start-ups and achieve success by translating ideas into actions. As

entrepreneurship intentions start at the student level in educational institutions, it is essential to encourage the students by inducting content in academic courses to increase their decision-making capabilities. From a policy perspective, as the number of women entrepreneurs is growing in India (as well as other developing countries), the findings suggest that ESE is the precursor to entrepreneurial success. The model we presented in this study offers a strategic tool for women entrepreneurs. Third, as success depends on relational support, it is suggested that women entrepreneurs expand their network to identify who can help achieve their goals. Fourth, local governments and private organizations can help individuals with high self-efficacy beliefs to promote entrepreneurship. As entrepreneurs provide employment opportunities for job-seekers, encouraging and promoting entrepreneurship helps economic development. As both opportunity and necessity drive entrepreneurship (Lingappa et al., 2023), local governments need to provide opportunities for encouraging women entrepreneurs so that they contribute to economic growth.

5.3. Limitations and Future Research

Though this study has several theoretical and practical contributions, it has some limitations. First, this study focuses on women entrepreneurs in southern India and has limited scope. However, as long as the socio-economic conditions of women entrepreneurs in other parts of the country are identical, the results can be generalizable across different parts of the country (Cullen, 2019). Second, the inherent limitations of survey-based studies (e.g., common method bias and social desirability bias) must be acknowledged, though adequate care is taken to minimize these biases. Third, a limited sample size may restrict the generalization of findings across different countries. Fourth, this study focused on a limited number of variables and did not consider essential variables (e.g., personality traits, psychological capital, emotional intelligence).

This study offers several avenues for future studies. First, as the findings demonstrated the outcomes of self-efficacy beliefs, future researchers can focus on exploring the antecedents of self-efficacy. Second, future studies may involve more extensive samples from different parts of the country. Third, this study focused on women entrepreneurs of small businesses, though around 90 percent of these started their businesses, and around 10 percent continued the inherited family businesses. Future studies may involve women-owned small and medium-sized enterprises and investigate the relationships we identified in this research. Fourth, it will be interesting to compare the effect of ESE on entrepreneurship sustenance in developing countries with developed nations to see if any cultural differences affect the relationships. Fifth, a comparison of developing countries may be helpful to identify any similarities and differences in the relationships established in this research.

5.4. Conclusion

Riding on SCT and SDT, the conceptual model built and tested provides a deeper understanding of factors contributing to entrepreneurial sustenance, especially regarding women entrepreneurs. This study underscores the importance of ESE as a precursor to the decision-making quality, motivation, and sustenance of women entrepreneurs in India. Further, as relational support, skills and competencies, and knowledge play a vital role in entrepreneurial success, entrepreneurs must acquire skills and knowledge. It is also suggested to increase the network of friends and relations because they can significantly contribute to the success of new ventures and continue the existing businesses. An increasing number of women entrepreneurs in India and worldwide motivates future studies to keep this topic on the agenda for a long time.

Abbreviations:

AVE = Average variance extracted estimate.
CR = Composite Reliability.
CFA = Confirmatory factor analysis.
CMV = Common method variance.
LLCI = Lower level confidence intervals.
ULCI = Upper level confidence intervals.

Declarations:

Availability of data and materials: The data will be made available upon request.
Competing interests: The authors do not have any competing interests.
Funding: The authors did not receive support from any organization for the submitted work.

REFERENCES

Abdul Al, R., & Mostafa, R. (2019). Entrepreneurial Motivation and Firm Performance in Lebanon", Crittenden, V.L. (Ed.) *Go-to-Market Strategies for Women Entrepreneurs*, Emerald Publishing Limited, Leeds, pp. 157-171. https://doi.org/10.1108/978-1-78973-289-420191020

Aboobaker, N., Renjini, D., & Zakkariya, K.A. (2023). Fostering entrepreneurial mindsets: the impact of learning motivation, personal innovativeness, technological self-efficacy, and human capital on entrepreneurial intention, *Journal of International Education in Business*, 16(3), 312-333. https://doi.org/10.1108/JIEB-10-2022-0071

Afshan, G., Shahid, S., & Tunio, M.N. (2021). Learning experiences of women entrepreneurs amidst COVID-19, *International Journal of Gender and Entrepreneurship* 29 (9), 889–891.

Agarwal, S., Ramadani, V., Dana, L.P., Agrawal, V., & Dixit, J.K. (2022). Assessment of the significance of factors affecting the growth of women entrepreneurs: study based on experience categorization, *Journal of Entrepreneurship in Emerging Economies*, 14 (1), 111–136.

Alam, M.Z., Kousar, S., & Rehman, C. A. (2019). Role of entrepreneurial motivation on entrepreneurial intentions and behaviour: theory of planned behaviour extension on engineering students in Pakistan, *Journal of Global Entrepreneurship Research*, 9:50, 1-20. https://doi.org/10.1186/s40497-019-0175-1

Al-Jubari, I., Hassan, A., & Liñan, F. (2019), Entrepreneurial intention among university students in Malaysia: integrating self-determination theory and the theory of planned behavior, *International Entrepreneurship and Management Journal*, 15(4), 1323-1342.

Al Mamun, A., & Ekpe, I. (2016). Entrepreneurial traits and micro-enterprise performance: A study among women micro-entrepreneurs in Malaysia. *Development in Practice*, 26(2), 193–202.

Alsos, G. A., & Ljunggren, E. (1998). Does the business start-up process differ by gender? A longitudinal study of nascent entrepreneurs. *Journal of Enterprising Culture*, 6(4), 347–367. https://doi.org/10.1142/S0218495898000205

Alvarez-Torres, F.J., Lopez-Torres, G.C., & Schiuma, G. (2019). Linking entrepreneurial orientation to SMEs' performance: Implications for entrepreneurship universities, *Management Decision*, 57(12), 3364-3386. https://doi.org/10.1108/MD-11-2018-1234

Amrita K., Garg C. P., & Singh S. (2018). Modelling the critical success factors of women entrepreneurship using fuzzy AHP framework. *Journal of Entrepreneurship in Emerging Economies*, 10(01), 81–116. https://doi.org/10.1108/JEEE-03-2017-0017

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411

Andriamahery, A., & Qamruzzaman, M. (2022). Do Access to Finance, Technical Know-How, and Financial Literacy Offer Women Empowerment Through Women's Entrepreneurial Development? *Frontiers in psychology*, 12, 776844. https://doi.org/10.3389/fpsyg.2021.776844

Arafat, M. Y., Ali, J., Dwivedi, A. K., & Saleem, I. (2020). Social and Cognitive Aspects of Women Entrepreneurs: Evidence from India. *Vikalpa*, 45(4), 223-239. https://doi.org/10.1177/0256090921101545 7

Bakkar, S.B., Hammoud, M.A.S., An-Najah, M.A.S., & Shendi, Y. A. A. (2021). The psychometric characteristics of the Omani entrepreneurial self-efficacy scale. *Journal of Entrepreneurship Education*, 24(S1), 1-14.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman. Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62-83.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26.

Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited, *Journal of Applied Psychology*, 88(1), 87-96.

Baum, J.R., & Locke, E.A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89 (4), 587-592.

Bernoster, I., Mukerjee, J., & Thurik, R. (2020). The role of affect in entrepreneurial orientation. *Small Business Economics*. 54 (1), 235–256.

Bird, B., & Schjoedt, L. (2009). Entrepreneurial behavior: Its nature, scope, recent research, and agenda for future research. In A. L. Carsrud, & M. Brännback (Eds.), *Understanding the entrepreneurial mind* (pp. 327–358). Springer: New York, NY. https://doi.org/10.1007/978-1-4419-0443-0_15

Bosma, N., Van Praag, M., Thurik, R., & De Wit, G. (2004). The value of human and social capital investments for the business performance of startups. *Small Business Economics*, 23(3), 227-236.

Boubker, O., Arroud, M., & Ouajdouni, A. (2021). Entrepreneurship education versus management students' entrepreneurial intentions. A PLS-SEM approach, *International Journal of Management Education*, 19:100450. doi: 10.1016/j.ijme.2020.100450

Bulanova, O., Isaksen, E.J., & Kolvereid, L. (2016). Growth aspirations among women entrepreneurs in high growth firms, *Baltic Journal of Management*, 11(29), 187-206.

Caines, V., Earl, J. K., & Bordia, P. (2019). Self-employment in later life: how future time perspective and social support influence self-employment interest, *Frontiers in Psychology*, 10:448. doi: 10.3389/fpsyg.2019.02008

Chan, W.L., & Mustafa, M.J. (2021). Journal of entrepreneurship in emerging economies (JEEE): reflecting on the past five years while thinking about the future, *Journal of Entrepreneurship in Emerging Economies*, 13(5), 791-818, doi: 10.1108/JEEE-06-2020-0162.

Chatterjee, N., Das, N., & Srivastava, N.K. (2019). A structural model assessing key factors affecting women's entrepreneurial success: evidence from India, *Journal of Entrepreneurship in Emerging Economies*, 11(1), 122-151, doi: 10.1108/JEEE-08-2016-0030

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13, 295–316. doi: 10.1016/s0883-9026(97)00029-3

Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, 4(1), 62-83.

Chen, M. H., Liao, Y. W., & Wang, S. Y. (2022). Risk-taking behavior and entrepreneurial success: The mediating role of venture innovation and value creation, *Journal of Business Research*, 135, 94-103.

Chhabra S., Raghunathan R., & Rao N. V. M. (2020). The antecedents of entrepreneurial intention among women entrepreneurs in India. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(01), 76–92. https://doi.org/10.1108/apjie-06-2019-0034

Chirwa E. W. (2008). Effects of gender on the performance of micro and small enterprises in Malawi. *Development Southern Africa*, 25(03), 347–362. https://doi.org/10.1080/03768350802212139

Coleman, S., & Kariv, D., 2014. Deconstructing entrepreneurial self-efficacy: a gendered perspective on the impact of ESE and community entrepreneurial culture on the financial strategies and performance of new firms, *Venture Capital*, 16 (2), 157–181.

Crespo, N.F., Belchior, R., Costa, E.B., 2018. Exploring individual differences in the relationship between entrepreneurial self-efficacy and intentions: evidence from Angola, *Journal of Small Business and Enterprise Development*, 27 (1), 1–30.

Cullen, U. (2019). Sociocultural factors as determinants of female entrepreneurs' business strategies, *Journal of Entrepreneurship in Emerging Economies*, 12(1), 144-167, doi: 10.1108/JEEE-04-2019-0046.

Davidsson, P., & Gruenhagen J. H. (2021). Fulfilling the process promise: A review and agenda for new venture creation process research. *Entrepreneurship Theory and Practice*, 45(5), 1083–1118.https://doi.org/10.1177/1042258720930991

Fatoki, O. O. (2011). The impact of human, social and financial capital on the performance of small and medium-sized enterprises (SMEs) in South Africa, *Journal of Social Sciences*, 29(3), 193-204.

Ferreira, M. P., Reis, N. R., & Miranda, R. (2015). Thirty years of entrepreneurship research published in top journals: analysis of citations, co-citations and themes, *Journal of Global Entrepreneurship Research*, 5(17); DOI 10.1186/s40497-015-0035-6

Frese, M., & Gielnik, M. M. (2014). The psychology of entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 413–438. https://doi.org/10.1146/annurev-orgpsych-031413-091326

Fuentes-Fuentes, M. D. M., Bojica, A. M., Ruizarroyo, M., & Welter, F. (2017). Innovativeness and business relationships in women-owned firms: The role of gender stereotypes, *Canadian Journal of Administrative Sciences*, 34, 63–76.

Gartner, W. B., & Teague, B. T. (2020). Introduction. In W. B. Gartner, & Teague, B. T. (Eds.), *Research handbook on entrepreneurial behavior, practice and process* (pp. 1–10). Edward Elgar Publishing: Cheltenham, UK.

Gatewood, E. J., Shaver, K. G., & Gartner, W. B. (1995). A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation, *Journal of Business Venturing*, 10(5), 371–391. https://doi.org/10.1016/0883-9026(95)00035-7

Gok, K., Kara, O., Lakshman, S., Demirtas, O., & Chu, H. M. (2021). A Factor Analysis of the Entrepreneurial Success, Motivation and Problems Faced: The Case of Chinese Entrepreneurs, *Journal of Entrepreneurship and Innovation in Emerging Economies*, 7(2), 165-193. https://doi.org/10.1177/23939575211019591

Gopinath, N., & Mitra, J. (2017). Entrepreneurship and Well-being: Towards Developing a Novel Conceptual Framework for Entrepreneurial Sustainability in Organisations, *Journal of Entrepreneurship and Innovation in Emerging Economies*, 3(1), 62-70. https://doi.org/10.1177/2393957516684464

Gupta N., & Mirchandani A. (2018). Investigating entrepreneurial success factors of women-owned SMEs in UAE, *Management Decision*, 56(01), 219–232. https://doi.org/10.1108/MD-04-2017-0411

Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (2018). *Multivariate Data Analysis* (8ted.), New Jersey, Prentice-Hall.

Hmieleski, K.M., & Baron, R.A. (2008). When does entrepreneurial self-efficacy enhance versus reduce firm performance? *Strategic Entrepreneurship Journal*, 2 (1), 57–72.

Horst, S. O., & Hitters, E. (2020). Digital media entrepreneurship: implications for strategic identity work and knowledge sharing of beginning entrepreneurs, *Nordic Journal of Media Management*, 1, 23–44.

Hu, W., Xu, Y., Zhao, F., & Chen, Y. (2022). Entrepreneurial Passion and Entrepreneurial Success—The Role of Psychological Capital and Entrepreneurial Policy Support, *Frontiers in Psychology*, 13:792066. doi: 10.3389/fpsyg.2022.792066

Huarng, K. H., & Ribeiro, S. D. E. (2014). Developmental management: theories, methods, and applications in entrepreneurship, innovation, and sensemaking, *Journal of Business Research*. 67, 657–662. doi: 10.1016/j.jbusres.2013.11.023

Hughes K. D. (2006). Exploring motivation and success among Canadian women entrepreneurs, *Journal of Small Business and Entrepreneurship*, 19(02), 107–120. https://doi.org/10.1080/08276331.2006.10593362

Kallas, E. (2019). Environment-readiness entrepreneurship intention model: The case of Estonians and the Russian-speaking minority in Estonia, *SAGE Open*, 9(1), Article 821759. https://doi.org/10.1177/2158244018821759

Kazumi, T., & Kawai, N., 2017. Institutional support and women's entrepreneurial self- efficacy, *Asia Pacific Journal of Innovation and Entrepreneurship*, 11 (3), 345–365.

Khan, R. U., Salamzadeh, Y., Shah, S. Z. A., & Hussain, M. (2021). Factors affecting women entrepreneurs' success: a study of small- and medium sized enterprises in emerging market of Pakistan, *Journal of Innovation and Entrepreneurship*, 10(11); https://doi.org/10.1186/s13731-021-00145-9

Kock, N. (2015). Common Method Bias in PLS-SEM: A Full Collinearity Assessment Approach. *International Journal of e-Collaboration*, 11, 1-10.

Krueger, N. Jr., and Dickson, P. R. (1994). How believing in ourselves increases risk taking: perceived self-efficacy and opportunity recognition, *Decision Sciences*, 25, 385–400. doi: 10.1111/j.1540-5915.1994.tb00810.x

Lang, C., & Liu, C. (2019). The entrepreneurial motivations, cognitive factors, and barriers to become a fashion entrepreneur: a direction to curriculum development for fashion entrepreneurship education, *International Journal of Fashion Design Technology & Education*, 12, 235–246. doi: 10.1080/17543266.2019.1581844

Law, K. M., Geng, S., & Li, T. (2019), Student enrollment, motivation and learning performance in a blended learning environment: the mediating effects of social, teaching, and cognitive presence, *Computers and Education*, 136, 1-12.

Lee, S. S., Stearns, T. M., Osteryoung, J. S., & Stephenson, H. B. (2009). A comparison of the critical success factors in women-owned business between the United States and Korea.

International Entrepreneurship and Management Journal, 5, 259–270. https://doi.org/10.1007/s11365-009-0110-y

Lee, S., Kang, M-J., & Kim, B-K. (2022). Factors Influencing Entrepreneurial Intention: Focusing on Individuals' Knowledge Exploration and Exploitation Activities, *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 165, https://doi.org/10.3390/joitmc8030165.

Linan, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions, *Entrepreneurship Theory and Practice*, 33(3), 593-617.

Linan, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda, *International Entrepreneurship and Management Journal*, 11(4), 907-933.

Lingappa, A.K., Rodrigues, L.L.R., & Shetty, D.K. (2023). Performance differentials of necessity and opportunity entrepreneurs: through the lens of motivation to learn and female entrepreneurial competencies, *Journal of Entrepreneurship in Emerging Economies*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JEEE-01-2023-0011

Loscocco, K. A., & Robinson, J. (1991). Barriers to women's small-business success in the United States. *Gender & Society*, 5(04), 511–532. https://doi.org/10.1177/089124391005004005

MacCallum, R. C., & Browne, M. W. (1993). The use of causal indicators in covariance structure models: Some practical issues. *Psychological Bulletin*, 114(3), 533–541. https://doi.org/10.1037/0033-2909.114.3.533

Madawala, K., Foroudi, P., & Maria Palazzo, M. (2023). Exploring the role played by entrepreneurial self-efficacy among women entrepreneurs in tourism sector, *Journal of Retailing and Consumer Services*, 74, 103395, https://doi.org/10.1016/j.jretconser.2023.103395.

Martínez-Gregorio ,S., Badenes-Ribera, L., & Oliver, A. (2021). Effect of entrepreneurship education on entrepreneurship intention and related outcomes in educational contexts: A meta-analysis, *The International Journal of Management Education*, 19(3), 100545. https://doi.org/10.1016/j.ijme.2021.100545

Matricano, D. (2023). Entrepreneurship: shaping the future! The Manifesto, *International Entrepreneurship and Management Journal*, https://doi.org/10.1007/s11365-023-00883-0

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, 720–737. doi: 10.1111/jsbm.12324.

Miao, C., Qian, S., & Ma, D. (2017). The relationship between entrepreneurial self-efficacy and firm performance: a meta-analysis of main and moderator effects, *Journal of Small Business Management*, 55 (1), 87–107.

Mozahem, N.A. (2021). Gender differences in entrepreneurial self-efficacy: an educational perspective, *International Journal of Management Education*, 19 (3); https://doi.org/10.1016/j.ijme.2021.100535

Mozumdar, L., Hagelaar, G., Materia, V. C., Omta, S. W. F., Islam, M. A., & van der Velde, G. (2019). Embeddedness or over-embeddedness? Women entrepreneurs' networks and their influence on business performance, *The European Journal of Development Research*, 31(5), 1449-1469.

Mozumdar, L., Materia, V. C., Hagelaar, G., Islam, M. A., Velde, G. V. D., & Omta, S. W. F. (2022). Contextuality of entrepreneurial

orientation and business performance: The case of women entrepreneurs in Bangladesh, *Journal of Entrepreneurship and Innovation in Emerging Economies*, 8(1), 94-120.

Mukhtar S.-M. (1998). Business characteristics of male and female small and medium enterprises in the UK: Implications for gender-based entrepreneurialism and business competence development. *British Journal of Management*, 9(01), 41–51. https://doi.org/10.1111/1467-8551.00074

Müller, S., Kirst, A.L., Bergmann, H., & Bird, B. (2023). Entrepreneurs' actions and venture success: a structured literature review and suggestions for future research, *Small Business Economics*, 60, 199–226, https://doi.org/10.1007/s11187-022-00644-3

Nabi, G., & Linan, F. (2011). Graduate entrepreneurship in the developing world: Intentions, education and development, *Education + Training*, 53(5), 5. https://doi.org/10.1108/00400911111147668

Neumeyer, X., Santos, S. C., Caetano, A., & Kalbfleisch, P. (2018). Entrepreneurship ecosystems and women entrepreneurs: a social capital and network approach, *Small Business Economics*. 3, 1–15. doi: 10.1007/s11187-018-9996-5

Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: a systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research, *Journal of Vocational Behavior*, 110, 403–419. doi: 10.1016/j.jvb.2018.05.012

Nurwahida, F. (2007). *Relationship between psychological characteristics and entrepreneurial success: A study of woman Entrepreneurs in Malaysia* Doctoral dissertation, Universiti Utara Malaysia.

Omran, W., & Yousafzai, S. (2023). Epistemic Injustice and Epistemic Resistance: An Intersectional Study of Women's Entrepreneurship Under Occupation and Patriarchy, *Entrepreneurship Theory and Practice*, 0(0). https://doi.org/10.1177/10422587231208621

Orhan, M., & Scott, D. (2001). Why women enter into entrepreneurship: An explanatory model, *Women in Management Review*, 16, 232–243.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Pollack, J. M., Burnette, J. L., & Hoyt, C. L. (2012). Self-efficacy in the face of threats to entrepreneurial success: Mind-sets matter, *Basic and Applied Social Psychology*, 34(3), 287–294

Phonthanukitithaworn, C., Ketkaew, C., & Naruetharadhol, P. (2019). Relevant factors for success as an online entrepreneur in Thailand. *SAGE Open*, 9, Article 821757. https://doi.org/10.1177/2158244018821757

Ribeiro, M. A., Adam, I., Kimbu, A. N., Afenyo-Agbe, E., Adeola, O., Figueroa-Domecq, C., & Jong, A. de. (2021). Women entrepreneurship orientation, networks and firm performance in the tourism industry in resource-scarce contexts, *Tourism Management*, 86(104343), 104343. https://doi.org/10.1016/j.tourman.2021.104343

Rosique-Blasco, M., Madrid-Guijarro, A., & García-Pérez-de-Lema, D. (2016). Entrepreneurial skills and socio-cultural factors: An empirical analysis in secondary education students, *Education + Training*, 58(7/8), pp. 815-831. https://doi.org/10.1108/ET-06-2015-0054

Rauch, A., & Hulsink, W. (2015). Putting entrepreneurship education where the intention to act lies: An investigation into the impact of entrepreneurship education on entrepreneurial behavior, *Academy of Management Learning & Education*, 14(2), 187-204.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being, *American Psychologist*, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Sanu, M. S., Ahmad, M. F., & Anjum, S. (2020). A Comparative Analysis of Women and Men-Owned MSMEs with Special Emphasis on Women Entrepreneurship: A Case Study of Cachar District, Assam, *SEDME (Small Enterprises Development, Management & Extension Journal)*, 47(4), 314-328. https://doi.org/10.1177/09708464211044227

Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure, *Educational and Psychological Measurement*, 55(5), 818–831

Schmutzler, J., Andonova, V., & Diaz-Serrano, L. (2018). How Context shapes entrepreneurial self-efficacy as a driver of entrepreneurial intentions: a multilevel approach, *Entrepreneurship Theory and Practice*, 43 (5), 880–920.

Shakeel, M., Yaokuang, L., & Gohar, A. (2020). Identifying the Entrepreneurial Success Factors and the Performance of Women-Owned Businesses in Pakistan: The Moderating Role of National Culture, *SAGE Open*, 10(2). https://doi.org/10.1177/2158244020919520

Shane, S. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Edward Elgar: Cheltenham, UK.

Shen, Y., Wang, Q., Hua, D., & Zhang, Z. (2021) Entrepreneurial Learning, Self-Efficacy, and Firm Performance: Exploring Moderating Effect of Entrepreneurial Orientation, *Frontiers in Psychology*, 12:731628. doi: 10.3389/fpsyg.2021.731628

Shepherd, D. (2015). Party on! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial, *Journal of Business Venturing*, 30(4), 489–507. https://doi.org/10.1016/j.jbusvent.2015.02.001

Shepherd, D. A., Williams, T. A., & Patzelt, H. (2015). Thinking About Entrepreneurial Decision Making: Review and Research Agenda, *Journal of Management*, 41(1), 11-46. https://doi.org/10.1177/0149206314541153

Shinnar, R.S., Hsu, D.K., & Powell, B.C. (2014). Self-efficacy, entrepreneurial intentions, and gender: assessing the impact of entrepreneurship education longitudinally, *International Journal of Management Education*, 12 (3), 561–570.

Shirokova, G., Tsukanova, T., & Laskovaia, A. (2018). Entrepreneurial intentions: The role of individual factors and the entrepreneurial ecosystem. *Sustainability*, 10(6), 1902.

Solesvik, M.Z. (2013). Entrepreneurial motivations and intentions: investigating the role of education major, *Education + Training*, 55(3), 253-271. https://doi.org/10.1108/00400911311309314

Sun, D., Li, S., & Xu, X. (2020). Analysis of reform and development strategies of China's Internet innovation and entrepreneurship education, *Entrepreneurship Education*, 3, 77–93. doi: 10.1007/s41959-020-00024-6

Tlaiss, H. A. (2019) Contextualizing the career success of Arab women entrepreneurs, *Entrepreneurship & Regional Development*, 31(3-4), 226-241, DOI: 10.1080/08985626.2018.1551790

To, C.K., Martínez, J.M.G., Orero-Blat, M., & Chau, K.P. (2020). Predicting motivational outcomes in social entrepreneurship: roles of entrepreneurial self-efficacy and situational fit, *Journal of Business Research*, 121, 209–222.

Tolli, A. P., & Schmidt, A. M. (2008). The role of feedback, causal attributions, and self-efficacy in goal revision. *Journal of Applied Psychology*, 93, 692–701. doi: 10.1037/0021-9010.93.3.692

Tsui, A.S., Pearce, J.L., Porter, L.W., Tripoli, A. M. (1997) Alternative Approaches to the Employee-Organization Relationship: Does Inducement in Employees Pay off? *Academy of Management Journal*, 40, 1089-1121. https://doi.org/10.5465/256928

Turker, D., & Selcuk, S. S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2),142-159. https://doi.org/10.1108/03090590910939049

Viinikainen, J., Heineck, G., Böckerman, P., Hintsanen, M., Raitakari, O., & Pehkonen, J. (2017). Born entrepreneurs? Adolescents' personality characteristics and entrepreneurship in adulthood, *Journal of Business Venturing Insights*, 8, 9–12.

Wennberg, K., Pathak, S., Autio, E. (2013). How culture moulds the effects of self-efficacy and fear of failure on entrepreneurship. *Entrepreneurship & Regional Development*, 25 (9–10), 756–780.

Yilmaz, C., & Ataay, A. (2011). The effect of entrepreneurial self-efficacy and perceived desirability on entrepreneurial intentions: A study on university students, *Procedia - Social and Behavioral Sciences*, 24, 648-660.

Wang, Q. (2018). Gender, race/ethnicity, and entrepreneurship: Women entrepreneurs in a US south city, *International Journal of Entrepreneurial Behavior & Research*, 25(8), 1766–1785.

Webster, N. A., & Haandrikman, K. (2020). Exploring the role of privilege in migrant women's self-employment, *Entrepreneurship Theory and Practice*, 46(6), 1534–1568.

Welsh, D.H., Llanos-Contreras, O., Alonso-Dos-Santos, M., & Kaciak, E. (2021). How much do network support and managerial skills affect women's entrepreneurial success? The overlooked role of country economic development, *Entrepreneurship and Regional Development*, 33(3/4), 287-308, doi: 10.1080/08985626.2021.1872939

Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56(3), 407–415. https://doi.org/10.1037/0022-3514.56.3.407

Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions, *Journal of Applied Psychology*, 90(6), 1265-1272.