

Women's entrepreneurial intentions in transitional economies: The dual role of entrepreneurial self efficacy under social barriers

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Abstract: *This study investigates how cognitive and contextual factors influence women's entrepreneurial intention (EI) in transition economies. Based on the Theory of Planned Behavior (TPB) and the Social Cognitive Theory (SCT), the model examines the predictive role of Entrepreneurial Self-Efficacy (ESE), Attitude Toward Entrepreneurial Risk (ATER), and Social Barriers to Entrepreneurship (SBTE) on entrepreneurial intention (EI) and subsequently Effective Entrepreneurial Behavior (EEB). Using a structural equation model on survey data from 658 Vietnamese women, the study shows that all three predictive factor-ATER, EEB, and SBTE-significantly influence EI. Notably, Entrepreneurial Self-Efficacy (ESE) moderates the relationship between ATER and EI, so that the positive impact of risk attitude on intention is amplified when ESE is high. Furthermore, ESE is a direct predictor of Effective Entrepreneurial Behavior (EEB). This research contributes to entrepreneurship research by clarifying the conditional role of ESE and affirming that strengthening both expectation and confidence can help overcome risk- and social barriers to entrepreneurship for women in a transitional context.*

Keywords: Entrepreneurial self-efficacy, Social Barriers, Women entrepreneurship, Transitional economies

Introduction

In a country undergoing economic transformation, promoting women's entrepreneurship is seen as an important driver for sustainable growth, improving gender equity, and contributing to social innovation. In Vietnam, the proportion of women participating in entrepreneurship is relatively high, but most of them still stop at the stage of forming intentions without transforming them into effective entrepreneurial behavior (Nguyen & Nguyen, 2011; Pham et al., 2025). The gap between "intention" and "action" not only reflects cognitive barriers but also demonstrates the limitations of traditional theoretical frameworks that only explain the motivation for forming intentions (Ajzen, 1991). In reality, the transition from intention to actual action is a complex process that is difficult to explain and is simultaneously influenced by personal beliefs, attitudes towards risk and the social environment (Bandura, 1986; Liñán & Fayolle, 2015). Therefore, expanding the research model to explain the mechanism of effective entrepreneurial behavior (EEB) has become an urgent requirement both academically and practically.

In developing countries, women often face various barriers such as: cultural, institutional and resource (Jamali, 2009; Bui, 2019). Although the Vietnamese Government has many policies to encourage female entrepreneurs, gender bias, limited access to resources and lack of support networks are still factors that hinder the process of converting intentions into actions (Tran & Pham, 2024). In addition, on an individual level, attitudes towards entrepreneurial risk (ATER) and social barriers to entrepreneurship (SBTE) can strongly influence how women assess their potential for future action. Meanwhile, Entrepreneurial Self-Efficacy (ESE) is considered a core psychological factor that helps women overcome social obstacles and have more confidence in their ability to run a business (Wilson et al., 2007; Zhao et al., 2005). However, previous studies in Vietnam have mainly stopped at analyzing Entrepreneurial Intention (EI) without delving into actual entrepreneurial behavior and the psychological-social mechanisms that regulate the different relationships of this process.

According to Ajzen's (1991) Theory of Planned Behavior (TPB), behavioral intention is formed from attitude, subjective norms, and perceived behavioral control. TPB has been proven to be an effective model for predicting entrepreneurial intention (Liñán & Chen, 2009; Duong & Tran, 2019). However, an important limitation of TPB is that this model does not convincingly explain the mechanism of transformation from intention to actual behavior (Krueger et al., 2000). Bandura's (1986) Social Cognitive Theory (SCT) overcomes this point by emphasizing that behavior is the result of interactions between individual-behavior-environment. In the SCT framework, self-efficacy is the central factor, determining the level of effort, persistence, and coping ability of individuals when performing actions. Therefore, the combination of TPB and SCT not only helps to better explain the intention formation stage, but also expands the ability to predict effective entrepreneurial behavior (EEB) through self-efficacy mechanisms and interactions with the social environment.

Many academic works have confirmed the pivotal role of ESE in both entrepreneurial intention and behavior. ESE not only directly affects EI but also moderates the relationship between attitude toward risk and entrepreneurial intention (Krueger & Dickson, 1994; Nowiński et al., 2019). People with high levels of ESE tend to perceive risks as opportunities, in which case they will maintain more positive attitudes toward entrepreneurial action (Forbes, 2005; Hmieleski & Corbett, 2008). Meanwhile, social barriers (SBTE) - including gender

stereotypes, family burden, lack of support from social networks - reduce ESE and make women less likely to realize entrepreneurial intention (Shinnar et al., 2012; Yordanova & Tarrazon, 2010). In addition, recent studies emphasize the importance of EEB as an end result reflecting the ability to transform intentions into effective behavior (Neneh, 2019). However, most studies in the Asian context still consider EEB as an indirect consequence of EI, without considering the moderating role of ESE in this chain of relationships.

Previous studies mainly focused on EI, lacking explanation of the mechanism EI → EEB. In addition, the work integrates TPB with SCT to clarify the mechanism of behavioral transformation in the context of Vietnamese women - where cultural and gender factors play a prominent role. Therefore, extending the theoretical model to explain how ESE affects entrepreneurial behavior through EI, while considering the moderation of the ATER-EI relationship is a new and necessary approach. This approach allows to better identify the role of self-efficacy and social factors in transforming motivation into practical behavior. In terms of academics, the study contributes by integrating TPB with SCT, expanding the understanding of entrepreneurial behavior in the context of gender and culture. In practice, the results help policy makers and entrepreneurship training organizations design programs to enhance ESE, reduce SBTE, and create a supportive environment to turn intentions into practical actions.

Literature review

Theoretical Background

The Theory of Planned Behavior (TPB) by Ajzen (1991) and the Social Cognitive Theory (SCT) by Bandura (1986) are two widely used frameworks to explain behavior. TPB focuses on the mechanism of behavioral intention formation (EI), while SCT emphasizes the role of self-efficacy and the social environment in performing behavior. Integrating these two theoretical frameworks will complement each other and allow for a better understanding of the process of transformation from intention to actual behavior, in this study, effective entrepreneurial behavior (EEB).

According to Ajzen (1991), behavioral intention is formed by three factors: attitude toward the behavior, subjective norms, and perceived behavioral control. In entrepreneurship research, TPB has shown strong predictive power for EI (Liñán & Chen, 2009; Liñán & Fayolle, 2015). However, this model does not explain why many individuals have strong intentions but still do not take action-that is, it lacks an “intention-behavior” explanatory mechanism (Krueger et al., 2000).

Bandura's (1986) SCT theory fills that gap by asserting that behavior is the result of the interaction between the individual, the behavior, and the environment. In which, self-efficacy plays a central role, reflecting personal belief in the ability to complete the action. People with high levels of self-efficacy tend to set higher goals, exert more effort, and persevere (Bandura, 1997). Entrepreneurial Self-Efficacy (ESE) as an element in the context of entrepreneurship is regarded as contributing to people believing in their possibility to manage risks and expand challenges (Zhao et al., 2005; Wilson et al., 2007). In the case of combining TPB and SCT, TPB describes the motive behind the intention formation with the help of attitude towards entrepreneurial risk (ATER), whereas the SCT provides an expansion with the addition of ESE and social barriers (SBTE). This model states that ESE not only has a direct impact on EI and

EEB but also moderates between ATER and EI relationships, with SBTE being the environmental factor, which may decrease the good attitude and self-efficacy (Jamali, 2009; Shinnar et al., 2012; Bui, 2019). Concisely, the synergy of TPB-SCT assists the research model not only in predicting the intention of entrepreneurship, but also in providing a reason of the actual practice with special focus on competence beliefs and the social context in motivating Vietnamese women to translate the intention into positive entrepreneurial behavior.

Concepts

Entrepreneurial Self-Efficacy (ESE)

The approach suggested by Bandura (1986) assumes that self-efficacy is an individualized belief of a capability to organize, coordinate, and implement the actions that an individual must take to complete his or her intended goals. When this can be applied to the area of entrepreneurship, the concept is further extended to Entrepreneurial Self-Efficacy (ESE), which indicates the degree of confidence that an individual has in their capability to meet the demands, riskiness and manage the demands that are characteristic in the process of establishing and running a business (Zhao et al., 2005). Having a high degree of ESE, individuals are more aggressive in decision-making, persistent in their victory over the challenges, and think risks are a part and parcel of the opportunity (Krueger & Dickson, 1994; Forbes, 2005).

In the light of the TPB, the Perceived Behavioral Control (PBC) component describes each person's subjective assessment of their ability and level of mastery over the behavior they intend to perform. PBC includes two aspects: perceived self-efficacy and perceived ability to control related conditions (Ajzen, 1991, 2002). In the context of entrepreneurship, ESE is considered a specific manifestation of PBC, emphasizing the psychological factor in the process of forming entrepreneurial behavior (Nasri & Morched, 2023).

From a theoretical perspective, ESE plays a central role in explaining how individual perceptions translate into intentions and actual behaviors. The higher the level of ESE, the more likely individuals are to positively evaluate the ability to implement entrepreneurial behavior, thereby easily forming intentions as well as implementing related actual behaviors. In addition, ESE can also play a moderating role, changing the intensity of the impact of factors such as attitude toward risk (ATER) on entrepreneurial intention (EI). Accurately grasping the concept and role of ESE is the key to better understanding entrepreneurial motivation and behavior in current research models.

Attitude Toward Entrepreneurial Risk (ATER)

According to Eagly & Chaiken (1993), attitude is a psychological tendency that directs how an individual evaluates an object in a positive or negative direction. Attitude cannot be directly observed but is inferred from an individual's behavior and reactions (Ajzen, 1991). In the TPB framework, Attitude Toward Entrepreneurial Risk (ATER) reflects how a person perceives entrepreneurial risk as an opportunity or a threat. In the research model, ATER is understood as a cognitive-emotional component that reflects a subjective assessment of risk, influenced by both individuals and society. At the same time, ESE plays an amplifying role, helping to

transform positive attitudes into more pronounced intentions in the entrepreneurial process. In Vietnam, which is strongly influenced by Eastern culture, women's attitudes towards risk are not only personal judgments but also influenced by traditional social values of gender roles (Pham et al., 2025). This suggests that ATER is a cross-section of subjective perceptions and cultural contexts. In addition, Caputo et al. (2025)'s study highlighted the relationship between ATER, self-efficacy, and effective entrepreneurial behavior (EEB). This suggests that ESE can be reinforced positively in the way individuals perceive risks.

Social Barriers to Entrepreneurship (SBTE)

According to Bandura (1986), Social Cognitive Theory (SCT) emphasizes the role of social and environmental factors in shaping individual behavior. For women entrepreneurs, social barriers to female entrepreneurship include factors such as gender stereotypes, family responsibilities, lack of support networks, and limited access to necessary resources (Jamali, 2009; Shinnar et al., 2012). These barriers not only reduce women's entrepreneurial ability (ESE) but also lead to risk aversion, thereby weakening women's entrepreneurial intention (EI) (Bui, 2019). In the theory of planned behavior, subjective norms are understood as individuals' perceptions of the expectations, support, or disapproval of important influencers (such as family, close friends, and informal colleagues) regarding the behavior they intend to perform (Ajzen, 1991). In the East Asian cultural context, SBTE is often associated with socio-cultural normative barriers, such as traditional notions of women's roles in the family, expectations of childcare responsibilities, and stereotypes that limit appropriate behavior (Shinnar et al., 2012). These norms create strong social pressure that causes many women to limit themselves, fearing negative images when women "neglect housework." This is a specific manifestation of subjective norms in the context of female entrepreneurship (Nessel et al., 2024). In this study, SBTE is considered an exogenous factor that has a negative impact on ATER and EI, thereby reducing women's motivation to act in the entrepreneurial process.

Entrepreneurial Intention (EI)

The TPB defines behavioral tendencies as motivational bases, which direct action and constitute how much effort individuals are prepared to exert to apply a certain action (Ajzen, 1991). Entrepreneurial intention (EI) is the nearest antecedent of entrepreneurial action in an entrepreneurship setting, which represents the willingness, dedication, and intention to participate in the creation of ventures (Ajzen, 1991; Linan and Chen, 2009). Therefore, EI combines the effects of relevant antecedents identified by TPB, and all three - ESE, ATER and SBTE - are direct predictors that influence individual intention to start an entrepreneurial business (Zhao et al., 2005; Shinnar et al., 2012). In the framework of the current research, EI is assumed to play a mediating role: it conveys the influence of psychological and situational determinants into effective entrepreneurial behavior (EEB), which is in line with the already existing literature proving that the intentions are a focal point and the determinants of socio-cognitive factors on entrepreneurial action (Fayolle and Linan, 2014; Kautonen et al., 2015). This mediating function reaffirms the claim that intention is the most important predictor of behavior by TPB and puts the emphasis on EI as a key flow, through which both personal beliefs and environmental perceptions are turned into entrepreneurial performance.

Effective Entrepreneurial Behavior (EEB)

The Entrepreneurial Effectuation Behavior (EEB) can be perceived as that which happens when the intentions are transformed into actions and the person is capable of converting the entrepreneurial intentions into tangible actions to generate new value. Neneh (2019) says that EEB comprises behaviors of idea development, mobilization of resources, organization, acting and maintaining action efforts hence the capacity of an individual to take action and how much they persevere in the process of entrepreneurship. Following the principles of behavioral approach, the value system of Van Dam et al. (2010) was passed to Neto et al. (2020), who further explained that innovative and proactive behavior manifestations are related to the entrepreneurial behavior, such as: opportunity detection and exploitation, risk management, and decisive action to transform opportunities into concrete outcomes. This view widens the connotation of EEB to see it as a collection of innovative, purposeful and value-oriented actions that depict the proficiency of an individual to adapt and behave in various settings. In a different view, Van Gelderen (2023) points out that the behavior of the entrepreneur can be shaped and strengthened with the help of the real-life everyday experiences. Creative thinking, initiative, mobilization of resources, the ability to ride the social networks, and maintaining persistence and replication in the achievement of goals are some of the entrepreneurial competencies practiced by individuals when they leave their comfortable zone. According to this approach, EEB is understood as a process that is trainable and developable, but not as a combination of some innate traits. Integrating the above views, the current research would take EEB as a complex of behaviors, which possess well-directed and goal-oriented orientation and presupposes the capacity to see the opportunities, handle risk and take actions proactively so that it could be possible to transform entrepreneurial intentions into a particular practice. This explanation is aligned with the argument of the extended TPB-SCT model wherein EEB is the outcome of the combination of behavior of psychological-social and the capacity of an individual.

Linkage Among Concepts

ESE and EI

The Social Cognitive Theory (SCT) attributes human behavior to the interplay between the individual and environmental factors as well as behavioral patterns (Bandura, 1986). In this context, self-efficacy is one of the focal points, since it is the conviction in the ability of one to plan and carry out the steps needed to accomplish certain objectives. It is based on this that the Theory of Planned Behavior (TPB) identifies Perceived Behavioral Control (PBC) as a primary predictor of behavioral intention which is defined as the perceived capacity to control and act in a certain way (Ajzen, 1991, 2002). In the context of entrepreneurship, Entrepreneurial Self-Efficacy (ESE) is the transference of PBC to the entrepreneurship sphere that explains how one perceives themselves to be able to do things in the domain of entrepreneurship (Nasri and Morced, 2023). It has been revealed through empirical studies that ESE is quite an influential factor regarding entrepreneurial intention (EI). As an illustration, Duong and Tran (2019) concluded that, in the case of Vietnam, ESE, as well as the attitude towards entrepreneurship,

is a crucial predictor of EI. In the same manner, Wilson et al. (2007) also noted that ESE gender difference leads to differences in the entrepreneurial intention, and this suggests its explanatory ability. Shinnar et al. (2014) showed that ESE-whether by conducting a longitudinal study, improvement in ESE results in the significant increase in EI of women, who had undergone entrepreneurship training or experiential learning, which also contributes to the transformative nature of entrepreneurship education. Additional facts support the mediation of ESE. Zhao et al. (2005) demonstrated that ESE predicts as well as intermediates the connection among personal factors (e.g., locus of control) and the entrepreneurial behavior. In countries like Vietnam, where structural and cultural barriers could be the bigger challenge to women, it is especially urgent to improve ESE as a way of making people transform latent entrepreneurial potential into intention and active action. The fact that these barriers are gendered makes ESE an essential process of empowerment. Complementing this, Fayolle & Gailly (2015) provide evidence that well-designed entrepreneurship education programs can substantially raise ESE levels, thereby stimulating EI, especially among female participants. In turn, the subtle character of the role of ESE can enlighten the policymakers and educational establishments to create the training programs aimed at developing the entrepreneurial capacity and motivation successfully. According to the theoretical arguments presented above and the empirical results, this study will have the following hypothesis:

H1+: ESE positively influences EI.

ESE and ATER

Entrepreneurial self-efficacy (ESE) does not only have an effect on entrepreneurial intentions but also determines attitudes towards entrepreneurial risk (ATER). In social cognition terms, highly self-efficacious people have increased confidence in their potential in managing uncertainty and dealing with problematic entrepreneurial conditions. This is their psychological strength as they become more rational and less emotionally biased to the risk, hence, developing a more positive and opportunity-driven perception of risk (Forbes, 2005). Wilson et al. (2007) focus on the fact that women who are more confident in their entrepreneurial potentials will demonstrate higher interests to become entrepreneurs and also exhibit high readiness to pursue and deal with business risks. In a similar study, McGee et al. (2009) have stated that the higher the ESE, the greater the feeling of control over risk, the more these people tend to develop routine coping processes which they use to counter any possible hindrance. This association between ESE and risk perception is strengthened in other studies. According to Hmieleski and Corbett (2008), ESE helps in making people seem more optimistic in uncertain situations because it enhances the perceived control people have over the consequences of such situations, thus redefining risk as an opportunity as opposed to a threat. This is specifically applicable to women, who might be more sensitive to failure and perceived risk; ESE might be used to alleviate these psychological obstacles and make women more confident in engaging in entrepreneurial operations (BarNir et al., 2011). There is also empirical evidence that specific programs of education and development of entrepreneurship skills work to increase ESE, as well as to change the attitude toward risks in a positive way (Nowinski et al., 2019). In a more recent study, Liguori et al. (2018) have identified that ESE enhances the resiliency and adaptive

thinking of individuals in the face of uncertain business conditions, which in turn has an indirect positive effect on how people evaluate risk.

Drawing on the above theoretical discussion and empirical findings, the following hypothesis is formulated:

H2+: ESE positively affects ATER.

ATER and EI

The Theory of Planned Behavior (TPB) introduced by Ajzen (1991) has been a popular conceptual framework to study the intentional behavior. This paper applies TPB to examine entrepreneurial intention among women as it is argued that the intention to get involved in entrepreneurial activities is influenced by three key factors, attitudes toward behavior, subjective norms, and perceived behavioral control (PBC) used concurrently. The research structure customizes TPB to the context of female entrepreneurship through mapping three antecedent variables onto core elements of the research structure. To begin with, Attitude Towards Entrepreneurial Risk (ATER) is the attitudinal dimension, which measures individuals of their attitudinal positions-positive or negative- to entrepreneurial risk (Ajzen, 1991; Kolvareid, 1996). Second, ESE is also associated with PBC in that this is the degree of individual confidence in their skill to handle entrepreneurial work (Krueger et al., 2000). Last, the idea of Social Barriers to Entrepreneurship (SBTE) is conceptually appealing with regards to subjective norms in that it operationalizes the concept of perceived social constraints, but in effect, says and does so in reference to the environmental expectations and pressures (Linan and Chen, 2009). Since these constructs logically sit within TPB, the model is based on a well-developed framework, which was tested in a variety of behavioral contexts and entrepreneurship is not an exception (Ajzen, 1991; Linan and Fayolle, 2015). According to behavioral science, human action is constructed through the combination of the external and internal realities where external realities (like environmental, institutional, and educational structures) are influenced by the internal cognitive factors (like attitudes and beliefs) (Hee-dong and Youngjin, 2004). The significance of cognitive evaluations in determining the behavioral intention has been emphasized by substantive empirical studies (Davis, 1989; Pham Ngoc Thu and Le Nguyen Hau, 2020). In addition, based on the occupational choice theory, people who are more tolerant to risk tend to venture into entrepreneurship because they believe that such processes have long-term effects (Tran, 2019). Elsewhere, Tran and Pham (2024) also established a negative relationship between risk attitudes and actual practice of entrepreneurial activities, thus supporting the usefulness of attitudinal variables in developing entrepreneurial choices. The hypothesis presented below is based on the theoretical discussion and empirical findings discussed above:

H3+: ATER positively affects EI.

The Moderating Role of ESE in the ATER–EI Relationship

Entrepreneurial self-efficacy (ESE) may be viewed as a catalyst or amplifier which enhances the connection between attitude cognitive appraisal- e.g. risk attitudes- and intention to become an entrepreneur. When people are quite confident that they can handle uncertainty, positive disposition towards risk is more easily converted into actual entrepreneur intentions since they feel that they can control and overcome the possible risks (Bandura, 1997; Zhao et al., 2005). On the other hand, low ESE individuals can also know that they can accept the risks, but are simply not bold enough to take them and consequently their intention formation is weaker. This moderating mechanism is empirically supported. According to Krueger and Dickson (1994), ESE, in addition to having a direct prediction of the intention to become an entrepreneur, moderates the influence of attitudinal and cognitive factors on behavioral intentions. High ESE can also make them view the risk as something manageable and as a part of the process of entrepreneurship; coupled with positive risk attitudes, it will result in the probability of developing entrepreneurial intentions increasing dramatically. In a similar manner, Linan and Chen (2009) posit that ESE promotes the process of the entrepreneurial intention and in that regard, people are able to translate cognitive judgments, that include risk perceptions, to action intentions. This is a moderating effect that is significant to women. The perceived risks are usually increased because of social restraints, gender stereotypes, and lack of support mechanisms which render the female entrepreneurs in the business. In this regard, ESE has become critical in helping women reshape their risks as manageable and developing confidence in their business potentials (Wilson et al., 2007). Empirical research also proves that ESE has a capacity to change the strength of the connection between ATER and EI (Nowinski et al., 2019; Neneh, 2019). Higher ESE people will be in a better position to be optimistic under unpredictable circumstances (Hmieleski and Corbett, 2008) and establish coping mechanisms that can convert the perceived risk into an opportunity. Conversely, low ESE individuals- including those who have positive attitudes towards risk- can be reluctant to venture into entrepreneurial activities because of the uncertainty of their capabilities to cope with the real-life issues (Zhao et al., 2005). This shows the occurrence of how ESE as a buffering and amplifying response of the ATER-EI relationship. Thus, it can be predicted that ESE will moderate the effect of ATER on EI where the effect of risk attitudes on the entrepreneurial intention will be greater when there is a higher level of ESE. The following moderating hypothesis is based on the reasoned arguments in the above thinking and the empirical evidence:

H4+: ESE moderates the relationship between ATER and EI.

SBTE and EI, ATER

The Social Cognitive Theory (SCT) holds that the social environment is an influential factor in the cognition and behaviour of individuals (Bandura, 1986). In the entrepreneurial context, Social Barriers to Entrepreneurship (SBTE) include different structural and cultural types of barriers, including gender stereotypes, financial marginalization, lack of institutionalization, and family commitments (Jamali, 2009; Shinnar et al., 2012). It is possible that these barriers will undermine the entrepreneurial self-efficacy (ESE), perceived risk, and positive attitudes towards entrepreneurship, which will reduce their entrepreneurial intention (EI) (Bui, 2019).

Female entrepreneurs tend to have a double burden; that is, they not only have to deal with the restraining social expectations but also with personal commitments, making the establishment of entrepreneurial intentions even more challenging. These mechanisms are also supported by empirical evidence. According to Yordanova and Tarrazon (2010), social barriers have a negative impact on the motivations to start a business, as well as ESE, in women. Their research in Bulgaria found out that women who feel undervalued or even work in an environment where the society attributes female roles to household chores would less have the feeling that they can engage in entrepreneurial activities. Likewise, Shinnar et al. (2012) have found that socio-cultural inhibitors play a key role in the entrepreneurial mind, where entrepreneurs tend to view entrepreneurship as a type of behavior that is not appropriate within the existing gender norms, the less women tend to be motivated to develop entrepreneurial intentions. This issue is further worsened in most developing nations, where support networks and training programs are not available, enhancing isolation and lacking confidence in entrepreneurial abilities (Pruett, 2012). This body of evidence, combined, indicates that SBTE has a negative effect on both ATER and EI, as an indication of the potential of the social context to serve as a structural limitation on the entrepreneurial cognition and behaviour, particularly in women. On the above theoretical arguments and empirical evidence, the following hypotheses are stated as follows:

H5-: SBTE negatively affects EI.

H6-: SBTE negatively affects ATER.

ESE, EI, and EEB

After establishing the entrepreneurial intention (EI), the extent to which such an intention can be transformed into entrepreneurial behavior is strongly pegged on the entrepreneurial self-efficacy (ESE) of an individual. This construct represents the perceived self-regulation capability and the ability to take actions in challenging and uncertain situations. In the context of the Theory of Planned Behavior (TPB), intention is the nearest antecedent of behavior (Ajzen, 1991), i.e. the greater the intentions, the higher the probability of behavioral performance. Therefore, this research paper envisages a beneficial impact of EI on successful entrepreneurship behaviour (EEB). In addition to this indirect route, existing studies also highlight the direct contribution of ESE in influencing the entrepreneurial behavior. According to Hmieleski and Corbett (2008), high self-efficacy provides more flexibility and endurance, both important in dealing with unpredictable business environments as well as being able to continue the process successfully over time. In the same light, Neto et al. (2020) in the process of validating the entrepreneurial behavior scale discovered that ESE prompts significant behavioral aspects and dimensions of opportunity recognition, risk management, and initiative. It indicates that self-efficacy is an important personal resource that not only triggers the intention building but also initiates the direct participation in the entrepreneurial pursuits. Additional evidence can be found in Van Gelderen (2023) who noted that people with high scores on ESE tend to start entrepreneurial actions even in less formal or daily situations, including trying out an idea, finding new opportunities, or networking. Such a proactive orientation explains that the concept of self-efficacy helps people to overcome hesitation and mobilize behavioral tendencies regardless of their intentions as claimed. Combined, these observations indicate two possible points of operation through which ESE functions. On one

hand, ESE indirectly influences the behavior through the establishment of more profound intentions; on the other hand, it influences the EEB directly, through which it is possible to implement the entrepreneurial actions in reality. In this respect, the research model is that EI has positive effects on EEB and the ESE has direct positive effects on EEB. Both of these relationships can be considered at the same time, which makes it possible to understand the nuanced impact of perceived capability on the entrepreneurial behavioral outcomes that are mediated and direct. Based on the theoretical reasoning and findings provided above, the hypotheses presented below are created:

- H7+: ESE positively affects EEB.
- H8+: EI positively affects EEB.

Conceptual Models

Based on the issues identified in Section 2.3, the proposed research model is formulated as follows (see Figure 1).

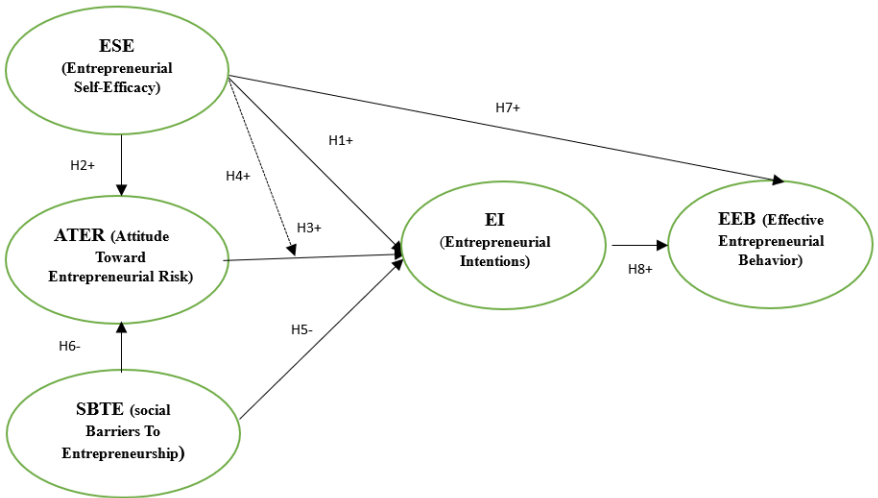


Figure 1: Illustration of the proposed conceptual model

Methodology

Research Process

The experimental approach to the research was a mixed method. A focus group was conducted in the qualitative phase, involving five female professionals who had doctoral degrees and had established their own businesses in Vietnam. The purpose of this discussion was to narrow down the content validity of the scale to suit the scope of the study. Once the scale is modified to suit the circumstances of the study, data will be collected using the scale to test the conceptual model to resolve the research hypotheses.

Sample and data collection

The research focused on Vietnamese women who were about to venture into business or had already entered businesses, thus in line with the research's objective of studying gender-based and culturally instilled entrepreneurial activities. The researchers utilized a non-probability convenience sampling strategy to obtain the sample, which was supplemented by snowballing. It was a structured questionnaire that was collected online. After conducting the validity screening, 658 responses from women who perceived themselves as possibly engaged in entrepreneurial activities were analyzed. This sample is adequate to meet the SEM requirement of ten or more observations per parameter that is being estimated, which is prescribed by Hair et al. (2019). Sixty two percent of the respondents had attended a training or other business support activities associated with entrepreneurship, and 48 percent of the respondents reported being in operation with a business during the survey (including large businesses and SMEs as well as household enterprises).

Measurements

Each measurement indicator was tailored to the contextual aspects of the current study, and most of the latent variables were theorized as first-order constructs. Each of the ATER, ESE, and SBTE scales included four items, respectively, modified based on the works of Linan and Chen (2009), Wei et al. (2020), and Malebana (2015). Linan and Chen (2009) were used to develop six items to measure EI. Finally, EEB is a second-order reflective construct consisting of three scales with 14 items that were also borrowed by Neto et al. (2020), namely, the scales of Opportunity-opp, Risk-ris, and Initiative-ini, with answers to be chosen on a five-point Likert scale of 1 (strongly disagree) to 5 (strongly agree). An informal measurement of the five constructs in the form of a focus-group analysis was conducted to review and perfect the measurement tools that align with the five constructs to ensure that they are semantically clear and culturally specific to the environment of the Vietnamese participants. According to the feedback of the expert panel when it came to the group discussion phase, a number of items were changed to be more worded and phrased. A single EI item was finally dropped, because the specialists felt that the item could not fit the sociocultural aspects of the target population.

Results and Discussion

Measure Refinement

Measurement scales were tested for reliability using Cronbach's alpha and exploratory factor analysis (EFA). The calculated coefficients showed that all constructs had an acceptable to good level of internal consistency, and the alpha values of ATER, ESE, SBTE, EI, ris, and ini were 0.821, 0.811, 0.802, 0.797, 0.867, and 0.828, respectively. These values are greater than the standard suggested level of 0.70, implying that there is consistency in the indicators used in each construct to reflect the latent concepts. In the EI construct, one item did not meet the item total correlation criteria and was therefore eliminated. In particular, products with item-total correlations below a cut-off point of 0.30, as proposed by Nunnally and Bernstein (1994), were evaluated to determine whether they should be eliminated. Following this refinement

measure, all other indicators with good discriminatory capacity were not eliminated and were included in further analyses. To further check the dimensional structure of the scales, a principal component analysis (PCA) with varimax rotation was performed. The extraction revealed four specific elements that, together, captured 63.44% of the overall variance, and the minimum eigenvalue obtained was 1.412. The explained variance at this level implies a strong underlying factor structure and justifies the suitability of the measurement model. Altogether, the findings confirm that the measurement tools meet the necessary requirements of reliability and initial validity. The scales that were optimized were therefore considered fit to be included in the confirmatory factor analysis (CFA) phase (see Table 1).

Table 1: Analysis of Rotated Component Matrix

	Components						
	One	Two	Three	Four	Five	Six	Seven
ese1	.826						
ses2	.831						
ese3	.742						
ese4	.829						
ater1		.830					
ater2		.778					
ater3		.750					
ater4		.839					
ei1				.823			
ei2				.758			
ei3				.750			
ei4				.677			
sbte1			.732				
sbte2			.797				
sbte3			.752				
sbte4			.771				
opp1					.811		
opp2					.761		
opp3					.762		
opp4					.664		
opp5					.832		
ris1						.801	
ris2						.781	
ris3						.715	
ris4						.678	
ris5						.819	
ini1							.856
ini2							.765
ini3							.783
ini4							.666

Source: Authors' Own Research

Measurement Validation

A saturated confirmatory factor analysis (CFA) model was used in the current study to test the sufficiency of the measurement criteria. The model included five latent constructs—EI, ESE, ATER, SBTE, and EEB—and provided a series of goodness-of-fit tests that showed that the formulated factor structure fit the empirical data. The chi-square value was significant ($\chi^2(384) = 581.327, p = 0.001$); however, the relative chi-square value ($Cmin/df = 1.514$) was well below the traditional value of 3, indicating a reasonable level of parsimony of the model (Carmines et al., 1981). Moreover, incremental and absolute fit measures, such as GPI (0.945), CFI (0.976), and TLI (0.973) have all exceeded the generally accepted threshold of 0.90, which adds to the overall fitness of the model. The value of RMSEA ($= 0.049$) being far less than the value of 0.08, which is the upper percentile of this value, supports the strength of the model, further (Figure 2).

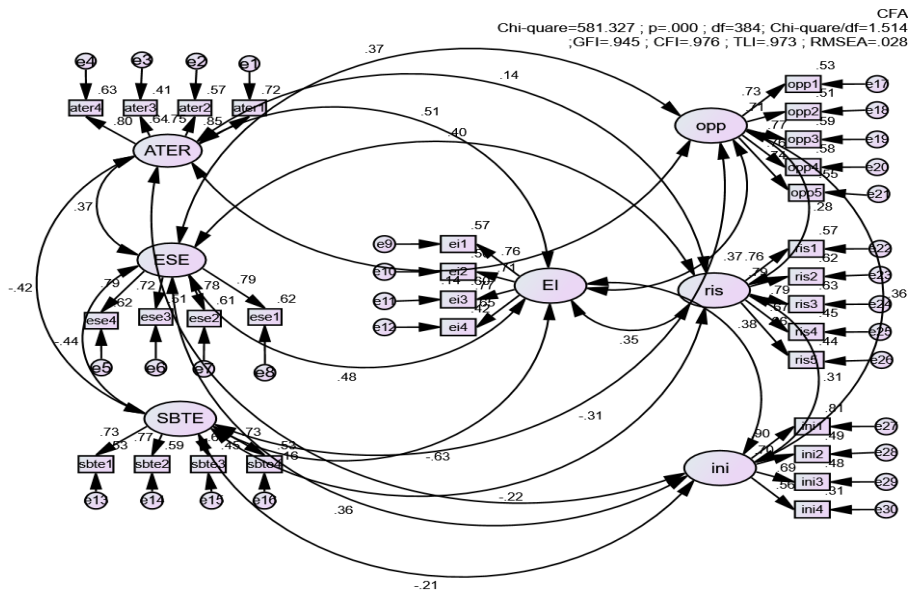


Figure 2: The Saturated CFA Model.

All standardized element loadings were both substantial (≥ 0.500) and significant at the $p < 0.001$ level, which provided strong support to convergent validity according to Gerbing et al. (1988). In addition, the values of composite reliability (CR) and average variance extracted (AVE) were more than the acceptable status of 0.50, which was evidence of internal consistency and convergent validity among constructs. Discriminant validity was also determined because the corresponding AVE of each construct was greater than the corresponding maximum shared variance (MSV), as was indicated by Nguyen and Nguyen (2011). All such psychometric properties have been summarized in Table 2.

Table 2: Measurement and Analysis of Model Validity

	CR	AV	M	Max	ATE	ESE	EI	SBT	opp	ris	ini
		E	SV	R(H)	R			E			
AT	0.8	0.5	0.2	0.863	0.763						
ER	47	83	59								
ES	0.8	0.5	0.2	0.855	0.371	0.769					
E	52	91	30		***						
EI	0.8	0.5	0.4	0.819	0.509	0.480	0.722				
	12	21	01		***	***					
SB	0.8	0.5	0.4	0.820	-	-	-	0.726			
TE	17	27	01		0.421	0.436	0.633				
					***	***	***				
opp	0.8	0.5	0.1	0.861	0.144	0.371	0.366	-	0.742		
	60	50	38		**	***	***	0.309			

ris	0.8	0.5	0.1	0.863	0.144	0.395	0.352	-	0.275	0.737	
	55	43	56		**	***	***	0.216	***		

ini	0.8	0.5	0.1	0.867	0.161	0.357	0.385	-	0.357	0.307	0.7
	10	23	48		***	***	***	0.210	***	***	23

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Structural Results

The findings of the structural equation modelling (SEM) offer solid empirical evidence of the theoretical approach applied in the present study and, as such, the interdependence of psychological and sociocultural factors influencing the entrepreneurial patterns of women in Vietnam. Table 3 demonstrates that all structural paths had statistically significant values and followed the hypothesized directions. Entrepreneurial self-efficacy (ESE) became one of the central forces of the model, having direct and indirect impacts. ESE had a positive effect on entrepreneurial intention (EI) ($\beta = 0.198, p < 0.001$), indicating that the greater the female confidence in her entrepreneurial capabilities, the greater are her chances to articulate clear intentions to engage in business affairs. In addition, ESE contributed significantly to increasing attitudes towards risk to entrepreneurship (ATER) ($\beta = 0.224, p < 0.001$), indicating that increased perceived competence allows women to engage more in opportunity-seeking risk interpretation. Conversely, social barriers to entrepreneurship (SBTE) had significant negative impacts on both ATER ($\beta = -0.324, p < 0.001$) and EI ($\beta = -0.446, p < 0.001$), demonstrating that gendered norms, domestic expectations, and institutional constraints affect women entrepreneurs’ decision-making processes. The negative influence of SBTE on EI is quite powerful, indicating how environmental pressure can potentially prevent women from converting their possible interest into tangible entrepreneurial goals. The findings also proved the mediating and moderating processes inherent in the model. EI was greatly influenced by ATER positively ($\beta = 0.238, p < 0.001$), confirming that risk-tolerant women tend to engage in entrepreneurial activity more. Interestingly, the Zater–Zese interaction term ($\beta = 0.110, p =$

0.001) had a significant moderating effect on EI, implying that the positive association between ATER and EI is even stronger when ESE is high. Lastly, EI and ESE were major predictors of effective entrepreneurial behavior (EEB). EI had positive effects on EEB ($\beta = 0.416, p < 0.001$), supporting the theory that intention is the closest behavior determinant. At the same time, ESE showed the greatest direct impact on EEB ($\beta = 0.462, p < 0.001$), highlighting that perceived ability is a determining factor in influencing women to make intentions and take the required actions in entrepreneurial behavior. Collectively, these findings reveal two-fold directions in which ESE influences the development of intention and action, and social barriers are essential contextual obstacles in the Vietnamese entrepreneurship landscape. The correlation between ESE and ATER is statistically significant ($\beta = 0.110, p = 0.001$); however, the strength of the coefficient indicates a rather weak practical effect. The simple slope analysis also indicates that the positive relationship between risk attitude and entrepreneurial intention among the participants with higher ESE is much steeper than that among the participants with lower ESE. However, the slope of variance is not significant but average. This result suggests that ESE reinforces the sensitivity of entrepreneurial intention to risk perception, but it can only play a complementary role. ESE increases the power of the risk attitude without completely changing the organizational nature of intention formation.

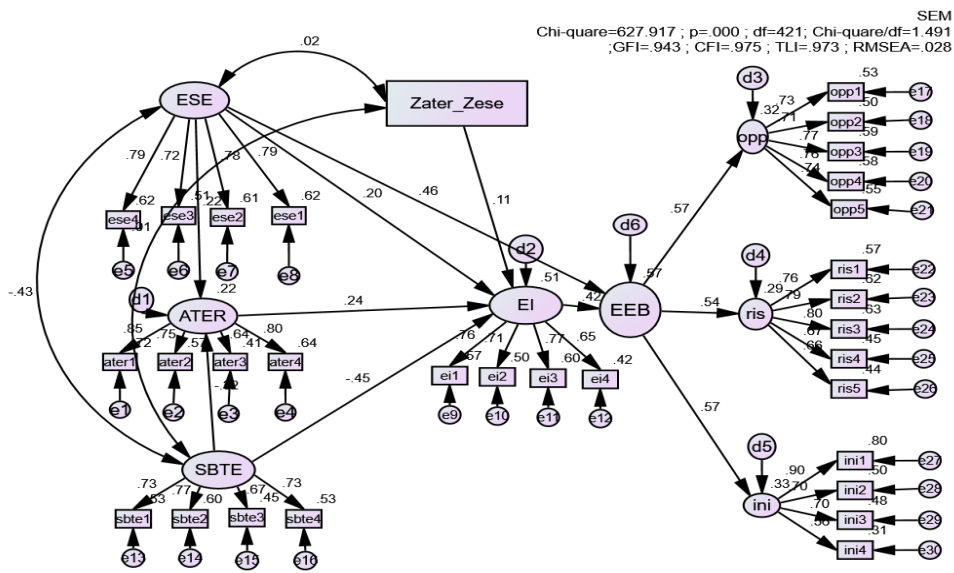


Figure 3: Structural equation modeling examination

Bootstrap Estimation

Bootstrap procedure was also used as another reliability test to confirm the strength and accuracy of the structural model. The resampling method enables one to repeatedly estimate the model parameters using a large number of sub-samples, which affords a more stringent study of the stability of the coefficients. The standard errors and confidence intervals generated by the bootstrap, as described in Table 4, show that the bootstrap estimates of the parameters do not vary much across the iterations, as most of the values of the bias tend to be relatively

small and insignificant. All these results indicate that sampling variability has a small effect on the obtained estimations of the relationships, supporting the reliability of the structural model paths. In line with the suggestion of Schumacker and Lomax (2004), the insignificant values of the variance suggest that the parameters are consistent and cannot be influenced by the random sampling error, and therefore, the general reliability of the model is valid when sampling is repeated.

Table 3: Structural Path Analysis (Standardized)

Hypotheses	Structural Path	Standardized Estimate	S.E.	C.R.	P
H2+	ATER <--- ESE	.224	.046	4.563	***
H6-	ATER <--- SBTE	-.324	.049	-6.266	***
H1+	EI <--- ESE	.198	.040	4.374	***
H3+	EI <--- ATER	.238	.042	5.289	***
H5-	EI <--- SBTE	-.446	.046	-8.434	***
H4+	EI <--- Zater_Zese	.110	.052	3.182	.001
H8+	EEB <--- EI	.416	.048	6.044	***
H7+	EEB <--- ESE	.462	.043	6.688	***

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Table 4: Bootstrap analysis, N=1000

Structural Path	Estimate	SE	SE-SE	Mean	Bias	SE-Bias	CR	P	Conclusion
ATER ← ESE	0.224	0.053	0.0101	0.225	0.001	0.0202	0.000	1.000	Consistent
ATER ← SBTE	0.324	0.055	0.0101	0.323	0.001	0.0202	0.500	0.617	Consistent
EI ← ESE	0.198	0.043	0.0101	0.197	0.001	0.0101	-0.000	0.317	Consistent
EI ← ATER	0.238	0.046	0.0101	0.239	0.001	0.0101	1.000	0.317	Consistent
EI ← SBTE	0.446	0.048	0.0101	0.445	0.001	0.0202	0.000	1.000	Consistent
EI ← Zater_Zese	0.110	0.036	0.0101	0.111	0.001	0.0101	0.000	1.000	Consistent
EEB ← EI	0.416	0.056	0.0101	0.418	0.002	0.0202	1.000	0.317	Consistent
EEB ← ESE	0.462	0.058	0.0101	0.461	0.001	0.0202	-0.000	0.617	Consistent

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Discussion

The present study contributes to the literature on women entrepreneurship by revealing the relationship between psychological determinants and contextual constraints in terms of forming entrepreneurial intention and the effective entrepreneurial behavior of Vietnamese women. In line with previous empirical studies, entrepreneurial self-efficacy (ESE) was revealed to be a key factor. Similar to Zhao et al. (2005), who discovered that ESE is a powerful predictor of entrepreneurial intention, regardless of the cultural context, this study confirms that the greater the levels of ESE, the better women will be in relation to their entrepreneurial intentions. This is in accordance with Wilson et al. (2007), who found that women with high ESE demonstrate better intentions, in addition to being more resilient when encountering gender-related barriers. Similarly, Shinnar et al. (2012) noted that training ESE significantly enhances EI in female participants, an outcome that is also reflected in this study's sample (the Vietnamese participants). The findings also confirm that ESE has a positive effect on the attitude towards entrepreneurial risk (ATER), which is consistent with the findings of Forbes (2005) and Hmieleski and Corbett (2008), who both held the view that people with high self-efficacy would perceive uncertainty as an opportunity, as opposed to a threat. Nevertheless, the effect size in the current study is slightly smaller, which can be explained by the fact that Vietnamese women may be more limited by the culture of risk-taking than other women considered in Western settings. In the case of ATER, the effect on EI is positive, as noted by Kolvereid (1996) and more recently by Tran (2019), who both established that risk-tolerant people have better intentions to start their own businesses.

The interaction effect, however, found here, where ESE substantially enhances the ATER–EI relationship, is another layer on familiarity with this phenomenon in transitional economies. This mediating process is similar to that demonstrated by Nowinski et al. (2019), who demonstrated that the translation of a positive risk attitude to entrepreneurial intention is enhanced by self-efficacy among young adults. Social barriers to entrepreneurship (SBET) were also determined to be a significant drawback in the study. This result compares to the results of Jamali (2009) and Yordanova and Tarrazon (2010) who also emphasized that women entrepreneur motivation is stifled by gendered expectations and structural factors. The adverse impact of SBTE on EI in this research is of a high magnitude, which attests to the results of Pham et al. (2025) and Bui (2019) stating the obstacles that impede the endeavors of Vietnamese female entrepreneurs as a result of their cultural setting.

Lastly, two roles that ESE can play in influencing both EI and EEB-supports are supported by Neneh (2019), who concluded that intentions are insufficient without a strong level of self-efficacy. This current evidence also extends Social Cognitive Theory, proposed by Bandura (1986), because it demonstrates that ESE not only supports the development of intention but also the process of transferring intention to productive entrepreneurial actions. This two-way process has not been extensively studied in Southeast Asian contexts; hence, it provides a theoretical input for this study. Collectively, the findings prove the hypothesis that the integration of the TPB and SCT can offer a more comprehensive picture of women's entrepreneurial journeys. The study that attitude, perceived capability, and social barriers jointly influence the decision to become an entrepreneur by providing insights based on previous research conducted in various settings provides both depth and breadth to earlier studies. These results highlight the importance of policies that would both ease structural

constraints and increase women's entrepreneurial self-efficacy so that more sustainable entrepreneurial engagement can emerge in Vietnam.

In addition to psychological contributions, this work also provides valuable economic information to transitional economies such as Vietnam. This interpretation of strengthening ESE refers to improving individual productive capacities and extending labor market participation beyond conventional wage jobs. As long as there is a translation of intention to entrepreneurial action by women with high ESE, there is a mobilization of underutilized human capital, especially during periods of structural transformation. Increase in women-headed businesses could help in creation of jobs, diversification of the economy and better income of households. Based on human capital, entrepreneurship is a capability accumulation process of opportunity identification, risk management, and innovation. Thus, ESE improvement policies can be considered long-term investments in national productive forces. By contrast, SBTE can falsify talent distribution and oppress the economy. Institutional and gender-based restrictions therefore have to be diminished to enhance efficiency and sustainable growth.

Conclusion, Implications, and Limitations

Conclusion

This study contributes to the knowledge of how women in Vietnam become entrepreneurs by linking the theory of planned behavior (TPB) and social cognitive theory (SCT) to establish the role of entrepreneurial self-efficacy (ESE), attitude Towards entrepreneurial risk (ATER), and social barriers to entrepreneurship (SBTE) in creating entrepreneurial intention (EI). The SEM findings reveal that ESE is a critical predictor that does not have a direct impact on EI only but enhances the power of risk attitudes to influence the intention to form. In line with previous evidence that discusses the psychological origins of women's motivation to become entrepreneurs, this research shows that women with better self-efficacy can better translate positive risk perceptions into actual entrepreneurial intentions. By contrast, a significant negative correlation was found between SBTE and EI, supporting the idea that cultural norms, gender expectations, and constraints on providing social support are significant structural constraints on female entrepreneurship in Vietnam. The integrated model makes a theoretical contribution by demystifying the cognitive-contextual processes that determine the formation of EI among women in transitional economies. It also highlights a two-way relationship in which ESE plays a direct predictor role as well as a modifier that multiplies the attitudinal antecedents of entrepreneurship intention. In general, the results highlight that increasing the perceived competence of women is one of the key factors in becoming a stronger barrier to socio-cultural obstacles and allow more individuals to engage in entrepreneurship.

Implications

Theoretical implications: This research outcome is valuable to the entrepreneurship study as it builds upon the TPB model adding the elements of SCT, demonstrating the impossibility of complete intention formation without considering self-efficacy and the social context in general. The ESE moderating role adds further refinement and proves that risk attitude can only be converted into entrepreneurial intentions when women have sufficient

confidence that they would be capable of navigating uncertain circumstances. This observation brings forth further study in trying to explore further in the future on non-linear or conditional relationship among cognitive constructs in the gendered cultural sphere.

Practical implications: From policy and practice perspectives, the results support the idea that improving ESE should be a priority for entrepreneurship development initiatives. Experience-based learning, mentorship, and opportunity identification training programs can significantly improve women's psychological preparedness for entrepreneurship. At the institutional level, decreasing SBTE necessitates concerted measures, such as establishing positive networks, encouraging inclusive financial instruments, and enhancing societal attitudes towards women's entrepreneurial roles. Policymakers can create an enabling ecosystem so that both entrepreneurial intention and effective entrepreneurship behavior are encouraged by empowering the women as well as by alleviating societal constraints on the same.

Limitations and Directions for Future Research

This study has a few limitations. First, the snowball sampling method was not a probability-based method; hence, restricting the generalizability of the results even though non-probability sampling methods are suitable in cases where the target population, such as potential women entrepreneurs, is inaccessible. Second, the cross-sectional research design does not allow causal inferences; longitudinal data would be more effective in describing dynamic processes involving how intentions turn into behavior. Third, the research was conducted in only one country (Vietnam), where collective values and traditional gender norms are strong; therefore, the way forward is to conduct research in different cultural contexts to determine the extent of its validity. Lastly, it would be beneficial to include some behavioral outcomes that are not self-reported (such as external support mechanisms, e.g., incubators, digital platforms), as this would provide a more detailed picture of how women develop as entrepreneurs. Moreover, only approximately 62% of the respondents had attended entrepreneurship training or support programs before. Such a percentage can lead to an overrepresentation of women with somewhat greater entrepreneurial confidence and readiness. Owing to this, the approximate relationships with entrepreneurial self-efficacy (ESE) might be increased to some extent. Specifically, the impact of ESE on entrepreneurial intention and behavior can be notably higher than when a more heterogeneous population is involved. As such, this is important to consider the generalization of the results to the greater population of women in transition economies.

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