

Enhancing Entrepreneurial Well-being Through Education: Unpacking The Roles of Risk Perception And Entrepreneurial Mindset

Arsyad Farraz Yuviansyah¹⁾; Shifa Megarani^{2*)}; Umi Arifah³⁾; Daffa Izzatur Rahman⁴⁾; Innayah⁵⁾

¹⁾ arsyadfarraz.2024@student.uny.ac.id, Universitas Negeri Yogyakarta, Indonesia

²⁾ shifa.megarani8@gmail.com, Universitas Sarjanawiyata Tamansiswa Yogyakarta, Indonesia

³⁾ umiarif301001@ustjogja.ac.id, Universitas Sarjanawiyata Tamansiswa Yogyakarta, Indonesia

⁴⁾ daffa_izzatur@apps.ipb.ac.id, IPB University, Indonesia

⁵⁾ inna008292.mhs@ustjogja.ac.id, Universitas Sarjanawiyata Tamansiswa Yogyakarta, Indonesia

*) Corresponding Author

ABSTRACT

Objectives: Although entrepreneurship research has extensively examined entrepreneurial intention and venture-related outcomes, comparatively less attention has been devoted to understanding how entrepreneurial education contributes to entrepreneurial well-being. Drawing on Self-Determination Theory (SDT), this study investigates the direct and indirect relationships among risk perception, entrepreneurial mindset, entrepreneurial education, and entrepreneurial well-being.

Methodology: A quantitative research design was applied, involving 184 undergraduate students in Yogyakarta and Bandung who had completed entrepreneurship-related courses and had entrepreneurial experience. Data were collected through an accidental sampling approach, and the proposed relationships were analyzed using structural equation modeling (PLS-SEM) with SmartPLS 4.

Finding: Risk perception positively influenced entrepreneurial well-being and entrepreneurial education. Entrepreneurial mindset positively influenced entrepreneurial education and entrepreneurial well-being, while entrepreneurial education enhanced entrepreneurial well-being. Entrepreneurial education significantly mediated both the entrepreneurial mindset–well-being relationship and the risk perception–well-being relationship, indicating complementary mediation in both pathways.

Conclusion: Entrepreneurial education functions not merely as a mechanism for developing entrepreneurial competencies but also as a psychological resource-building mechanism through which cognitive orientations and risk appraisals are translated into entrepreneurial well-being. The study extends the application of SDT in the entrepreneurship context by positioning well-being as a central educational outcome and demonstrating that both risk perception and entrepreneurial mindset contribute to entrepreneurial well-being directly and indirectly through entrepreneurial education.

Keywords: Entrepreneurial Education; Entrepreneurial Mindset; Entrepreneurial Well-being; Risk Perception.

Submitted: 10-10-2025

Revised: 03-09-2026

Accepted: 11-09-2026

Article Doi:

http://dx.doi.org/10.22441/jurnal_mix.2026.v16i2.024

INTRODUCTION

Entrepreneurship plays a pivotal function in advancing employment generation, stimulating inventive capacity, and fortifying the adaptive resilience of communities. Nurturing entrepreneurial orientation, particularly among younger cohorts, can broaden occupational prospects while consolidating economic robustness (Brixy & Murmann, 2025; Rosas et al., 2022). During times of crisis, entrepreneurial initiatives have been shown to maintain job continuity and foster innovation through the formation of new businesses (Nikolaev et al., 2023). These findings highlight the importance of designing interventions that not only promote business success but also foster entrepreneurial competencies, adaptive mindsets, and well-being, all of which contribute to sustainable entrepreneurial outcomes.

Entrepreneurial education represents an indispensable instrument that endows individuals with the requisite knowledge, competencies, and orientations to remain competitive within volatile and evolving environments (Larsen et al., 2023; Wardana et al., 2020). Recent research shows that entrepreneurial education not only influences entrepreneurial intentions but can also shape entrepreneurial orientation and mindsets if implemented through autonomy-supporting and experience-based learning methods (Khalil et al., 2024; Smolka et al., 2024). Nevertheless, prevailing research remains predominantly centered on outcomes such as entrepreneurial intention, self-efficacy, behavior, or venture success, whereas the impact of education on entrepreneurial well-being has received comparatively limited scholarly attention (Dimov & Pistrui, 2024; Stephan et al., 2023).

Entrepreneurial well-being encompasses individuals' subjective assessments of life satisfaction, happiness, and positive psychological functioning within the context of entrepreneurial development and activities (Huang et al., 2024). In this study, entrepreneurial well-being is conceptually informed by the broader psychological well-being perspective developed by Ryff (1989) which emphasizes positive psychological functioning, personal growth, purpose in life, positive relations, self-acceptance, and environmental mastery. Rather than treating Ryff's framework as a specific entrepreneurial well-being scale, this study applies selected psychological well-being indicators within an entrepreneurial context to capture individuals' perceived well-being associated with their entrepreneurial development. This perspective is particularly relevant for students with entrepreneurial experience, as their entrepreneurial learning and experiences may influence their sense of purpose, personal growth, confidence, relationships, and ability to manage their environment. Entrepreneurial well-being may therefore be shaped by individual characteristics, educational experiences, and perceptions of entrepreneurial opportunities and challenges. Previous research emphasizes that well-being is an important dimension of the entrepreneurial process, particularly because entrepreneurial activities involve uncertainty, financial risks, and various personal demands (Huang et al., 2024; Yang et al., 2021). Accordingly, examining entrepreneurial well-being provides a broader understanding of entrepreneurship beyond conventional outcomes such as entrepreneurial intention, venture creation, or business performance.

Entrepreneurial mindset, distinguished by resilience, versatility, and the ability to recognize opportunities, is a crucial element shaping how individuals respond to uncertainty (Lanivich et al., 2021). However, research specifically linking entrepreneurial mindset and risk perception to entrepreneurial well-being is limited (Barbosa et al., 2024). Most research on entrepreneurship still focuses on conventional indicators of success, such as business survival or economic impact. At the same time, the psychological and emotional dimensions associated with entrepreneurial activity are often overlooked (Jiatong et al., 2021). Therefore, it is

important to understand not only how entrepreneurial education fosters an entrepreneurial mindset but also how such a mindset helps individuals manage risk perceptions that may otherwise discourage entrepreneurial engagement. Drawing upon Self-Determination Theory (SDT), entrepreneurial education can be structured to fulfill fundamental human needs for autonomy, competence, and relatedness. If these needs are met, entrepreneurs will be better able to face risks and develop adaptive mindsets, ultimately increasing well-being in their entrepreneurial undertakings (Huang et al., 2024; Ryan & Deci, 2020; Stephan et al., 2020).

Despite growing interest in entrepreneurial well-being, limited research has simultaneously examined the roles of entrepreneurial mindset, risk perception, and entrepreneurial education in explaining well-being outcomes among aspiring entrepreneurs. Moreover, the mediating role of entrepreneurial education in linking these psychological factors to entrepreneurial well-being remains insufficiently understood. This limitation reflects three interrelated research gaps. First, previous entrepreneurial education studies have predominantly focused on entrepreneurial intention, behavior, and venture-related outcomes, leaving entrepreneurial well-being comparatively underexplored. Second, there is still limited understanding of the mechanism through which cognitive orientations and perceptions of risk are transformed into well-being outcomes. Entrepreneurial mindset, risk perception, and entrepreneurial education have often been investigated independently, with relatively little effort to integrate them into a unified explanatory framework. Third, despite the relevance of Self-Determination Theory, its application in entrepreneurial education remains underdeveloped. Educational factors are frequently used to predict entrepreneurial intentions and behaviors, but the psychological processes through which entrepreneurial education enhances well-being have not yet been clearly established.

To address these gaps, the present study examines the relationships among entrepreneurial education, risk perception, entrepreneurial mindset, and entrepreneurial well-being through the lens of Self-Determination Theory (SDT). First, it recognizes entrepreneurial well-being, rather than entrepreneurial intention alone, as a key outcome of the educational process. Second, entrepreneurial education is conceptualized as a mechanism for developing psychological resources that enable individuals to translate risk appraisals and entrepreneurial cognition into greater well-being. Third, the study identifies two complementary mediation pathways. Entrepreneurial education complements the direct positive contributions of both entrepreneurial mindset and risk perception to entrepreneurial well-being, indicating that these cognitive factors influence well-being both directly and through educational experiences. Taken together, these contributions extend the entrepreneurial well-being literature and reinforce an SDT-based perspective that emphasizes personal development, psychological resilience, and the long-term sustainability of entrepreneurship as a career choice.

LITERATURE REVIEW

Previous studies on entrepreneurial education have primarily examined entrepreneurial intention and related cognitive outcomes. Wardana et al. (2020) showed that entrepreneurial education and entrepreneurial mindset influence entrepreneurial intention through attitude and self-efficacy, while Jiatong et al. (2021) found that entrepreneurial education, mindset, and creativity affect entrepreneurial intention through entrepreneurial self-efficacy. Mukhtar et al. (2021), Zhang et al. (2022), and Sun et al. (2023) similarly emphasized the role of entrepreneurial education in strengthening entrepreneurial mindset, self-efficacy, and intention. However, prior evidence regarding the psychological consequences of entrepreneurial risk

remains inconclusive, as some studies associate perceived threat with poorer psychological outcomes, whereas others indicate that its effects depend on coping capacity and the resources available to manage uncertainty.

Research on entrepreneurial well-being has developed through a related but largely separate stream. Lanivich et al. (2021) linked an entrepreneurial mindset with thriving in early-stage entrepreneurship, whereas Stephan et al. (2023) demonstrated that the well-being outcomes of entrepreneurship vary across individuals and contexts. Huang et al. (2024) further highlighted the roles of social support, entrepreneurial passion, and entrepreneurial efficacy in enhancing entrepreneurial well-being. Other studies indicate that entrepreneurial uncertainty and threat perception may increase anxiety and psychological pressure, but their consequences depend on coping strategies and the resources available to manage them (Yunjian Li et al., 2022; Nikolaev et al., 2023).

Taken together, previous research suggests that entrepreneurial education, entrepreneurial mindset, risk perception, and entrepreneurial well-being are closely related, but they have generally been examined in separate research streams. The literature has extensively explained entrepreneurial intention and venture-related outcomes, while comparatively less evidence is available on how educational experiences connect entrepreneurial cognition and risk perception with psychological well-being.

Risk Perception and Entrepreneurial Well-being

Risk perception plays a crucial role in facilitating entrepreneurial activity, particularly influencing how entrepreneurs perceive challenges and opportunities, thus significantly impacting their decision-making process and risk-taking behavior (Sun et al., 2023). Risk perception influences how individuals evaluate uncertainty and potential entrepreneurial outcomes. Higher levels of perceived risk may generate psychological strain and anxiety, which can negatively affect well-being. However, the impact of risk perception on well-being may vary depending on individuals' coping resources and ability to manage uncertainty (Jiatong et al., 2021). Empirical studies indicate that fear of failure often obstructs prospective entrepreneurs from translating intentions into action, thereby diminishing their well-being (Ukil & Jenkins, 2023). From a cognitive appraisal perspective, however, perceived risk does not produce uniformly negative psychological consequences. Its effect depends on whether uncertainty is interpreted as an uncontrollable threat or a manageable challenge and on the resources available to address it (H. Liu et al., 2026). SDT similarly suggests that psychological functioning depends partly on whether individuals feel competent and autonomous in managing environmental demands. Therefore, risk perception may influence entrepreneurial well-being, although the strength of the relationship may depend on the availability of coping and learning resources.

H1: Risk perception has a significant effect on Entrepreneurial well-being.

Entrepreneurial Education and Entrepreneurial Well-being

Effective entrepreneurial education not only furnishes students with knowledge but also improves psychological well-being by strengthening resilience and adaptability, two traits essential to entrepreneurial practice (Krichen & Chaabouni, 2022; Yue Li et al., 2023; Liu et al., 2025). When supported by targeted educational interventions, individuals learn to view risks not solely as threats but as opportunities for growth, which ultimately can increase satisfaction in entrepreneurial activities (Shen & Huang, 2023). From the perspective of Self-Determination Theory, educational environments that support autonomy, competence, and relatedness

contribute to positive psychological functioning and well-being. Entrepreneurial education can provide such supportive experiences through experiential learning, mentoring, and collaborative activities, thereby enhancing entrepreneurial well-being (Krichen & Chaabouni, 2022; Ryan & Deci, 2020). Based on this rationale, the following hypothesis is stated:

H2: Entrepreneurial education exerts a significant influence on entrepreneurial well-being.

Risk Perception and Entrepreneurial Education

Entrepreneurial education is conceptualized as a set of structured knowledge-acquisition initiatives aimed at instilling entrepreneurial understanding, competencies, and spirit (Alshagawi & Ghaleb, 2023; Porfirio et al., 2022). Individuals who perceive entrepreneurship as uncertain or risky may attach greater value to education that provides tools for reducing uncertainty. In SDT terms, perceived risk can reveal a competence gap between entrepreneurial demands and an individual's perceived ability to address them. Educational experiences can help close this gap by building risk-evaluation, financial, problem-solving, and decision-making capabilities (Zhang et al., 2022). Consequently, greater awareness of entrepreneurial risk may strengthen students' engagement with and perceived value of entrepreneurial education.

H3: Risk perception has a significant effect on entrepreneurial education.

Entrepreneurial Mindset and Entrepreneurial Education

The impact of entrepreneurial mindset on entrepreneurial education likewise warrants scholarly consideration. Cultivating an entrepreneurial mindset is essential for enhancing students' intentions to embark on entrepreneurial careers (Mukhtar et al., 2021; Wardana et al., 2020). The interaction between entrepreneurial mindset and learning outcomes creates a feedback loop where education strengthens entrepreneurial mindsets, which in turn increases student engagement and success in the learning process (Ndofirepi, 2020). Research also confirms that learning formats that emphasize critical thinking and creativity not only foster entrepreneurial mindsets but also improve the excellence of the learning experience (Karyaningsih et al., 2020). Individuals with a strong entrepreneurial mindset are generally more proactive in seeking learning opportunities, engaging in experiential activities, and utilizing educational resources. Therefore, entrepreneurial mindset may encourage greater participation in entrepreneurial education and enhance learning engagement. From an SDT perspective, an entrepreneurial mindset can encourage more autonomous engagement with learning opportunities, allowing individuals to actively seek experiences that strengthen their perceived competence in entrepreneurship.

H4: Entrepreneurial mindset has a significant effect on entrepreneurial education.

Entrepreneurial Mindset and Entrepreneurial Well-being

The entrepreneurial mindset encompasses a broad range of attitudes and behaviors, such as the capacity to identify opportunities and a pronounced inclination toward advancement (Handayati et al., 2020). An adaptive mindset can enable individuals to interpret uncertainty as a manageable challenge rather than an overwhelming threat. Consistent with SDT, this agentic orientation supports autonomous action and effective use of personal competencies, thereby strengthening meaning, vitality, and satisfaction. Research has shown that entrepreneurial mindset plays an important role in shaping students' entrepreneurial intentions and their orientation toward entrepreneurship (Mukhtar et al., 2021; Hassan et al., 2021). From this perspective, a stronger entrepreneurial mindset may also provide a cognitive foundation for

developing positive psychological outcomes in entrepreneurial contexts. Based on these findings, the subsequent hypothesis is stated:

H5: Entrepreneurial mindset significantly influences entrepreneurial well-being.

The Mediating Role of Entrepreneurial Education

Entrepreneurial mindset encourages deeper participation in the learning process, thus optimizing the quality of the educational experience. Through this pathway, education then strengthens motivation, increases the courage to take calculated risks, and builds resilience, ultimately contributing positively to entrepreneurial well-being (M. Liu et al., 2025; Yue Li et al., 2023; Enrique et al., 2024). Previous research also confirms that the skills and attitudes developed through entrepreneurial education significantly improve well-being and facilitate higher entrepreneurial intentions in students (Pham et al., 2023). According to SDT, entrepreneurial education can transform entrepreneurial dispositions into positive psychological outcomes by fulfilling individuals' needs for autonomy, competence, and relatedness. Therefore, the following hypothesis is stated:

H6: Entrepreneurial education mediates the linkage between entrepreneurial mindset and entrepreneurial well-being.

Education serves as a bridge that helps individuals understand risks and encourages more disciplined and systematic engagement in the entrepreneurial process (Jiatong et al., 2021; Sun et al., 2023). Social support can positively contribute to entrepreneurial well-being through entrepreneurial passion, while entrepreneurial efficacy strengthens this relationship (Huang et al., 2024). Well-structured entrepreneurial education programs not only enrich knowledge to differentiate between manageable and avoidable risks but also strengthen entrepreneurial decision-making capacities and directly influence well-being (Jiatong et al., 2021; Wardana et al., 2020). Entrepreneurial education provides cognitive and psychological resources that help individuals reinterpret entrepreneurial risks as manageable challenges. Consequently, in addition to its direct relationship with entrepreneurial well-being, risk perception may also influence well-being indirectly through educational experiences that strengthen individuals' capacity to manage entrepreneurial uncertainty. From an SDT perspective, entrepreneurial education may convert perceived uncertainty into greater competence and perceived control, thereby supporting psychological functioning and entrepreneurial well-being. From this foundation, we formulate

H7: Entrepreneurial education serves as the mediating construct that connects risk perception to entrepreneurial well-being.

METHOD

This study employed a quantitative approach to examine the effects of Risk Perception (RP) and Entrepreneurial Mindset (EM) on Entrepreneurial Well-being (EWB), with Entrepreneurial Education (EE) serving as a mediating variable. The target population consisted of undergraduate students at universities in the Special Region of Yogyakarta and Bandung who had completed an entrepreneurship-related course and had entrepreneurial experience. These criteria ensured that respondents possessed sufficient exposure to entrepreneurship-related knowledge and experience to meaningfully evaluate the focal constructs and represented prospective entrepreneurs at a formative stage of their career development.

Because the exact size of the population meeting these specific criteria could not be determined, the Cochran formula was used to estimate the required sample size for an unknown population (Cochran & Cochran, 1977). The formula is expressed as follows:

$$\pi = \frac{z^2 pq}{e^2} \quad (1)$$

Where n represents the required sample size, Z is the standard normal value corresponding to a 95% confidence level (1.96), p represents the estimated population proportion (0.50), $q = 1 - p$ (0.50), and e represents the margin of error. Using these parameters, the sample size was calculated as:

$$\begin{aligned} n &= \frac{(1.96)^2(0.5)(0.5)}{(0.07225)^2} \\ &= 183.98 / 184 \end{aligned} \quad (2)$$

Accordingly, the study used 184 respondents as the required sample size. Respondents were recruited using accidental sampling, in which undergraduate students encountered during the data-collection process were selected provided that they met the predetermined inclusion criteria. The final sample consisted of 184 valid respondents. The adequacy of the sample was also assessed against the statistical requirements of the PLS-SEM model. The structural model consisted of the direct paths from RP and EM to EWB, the paths from RP and EM to the mediating variable EE, and the path from EE to EWB. The sample exceeded the minimum statistical-power requirements for the supported structural paths at $\alpha = 0.05$ and statistical power of 0.80; therefore, the sample was considered adequate for testing both the direct and mediated relationships. The very small effect of RP on EWB was interpreted cautiously (Hair et al., 2022).

The research utilized a questionnaire employing a five-point Likert scale, where a score of 1 represented “strongly disagree” and a score of 5 denoted “strongly agree.” Risk perception was measured using four statements, for example, “In my opinion, the potential of experiencing business failure is also large” (Massa et al., 2024; Simon et al., 2000), Entrepreneurial mindset was measured with six statements, including “I have selected ideas for business opportunities in entrepreneurial activities” (Mukhtar et al., 2021). Entrepreneurial education was measured with six indicators, including the statement: “I believe that university education cultivates skills and competencies related to entrepreneurship” (Denanyoh et al., 2015; Mukhtar et al., 2021). The entrepreneurial well-being variable was measured using seven statements, including “In my view, life is an ongoing journey of learning, transformation, and personal development” (Ryff, 1989). Data collected and meeting the research criteria were analyzed using SmartPLS 4 software to test the linkages among elements in the research model.

RESULTS AND DISCUSSION

Respondent Profile

The study respondents were 184 students, of whom 62.5% were female and 37.5% were male. In terms of university origin, the largest proportion came from Sarjanawiyata Tamansiswa University (84 respondents), followed by Telkom University (71 respondents). In contrast, other universities such as Yogyakarta State University (6.0%), UIN Sunan Gunung Djati Bandung (2.7%), and Gadjah Mada University (1.6%) had relatively small percentages. Most respondents were in their seventh semester (31.5%), fifth semester (26.1%), and third semester (26.6%), while other semesters had lower representation. This shows that most

respondents were in the mid-to-late phase of their studies, which is generally characterized by a more mature level of academic engagement and entrepreneurial experience. In addition, 126 respondents (68.5%) had work or internship experience, while 58 respondents (31.5%) had no such experience. These findings indicate that most respondents have been exposed to practical experience in the workplace. Furthermore, 68.5% of respondents had parents who were entrepreneurs, while 31.5% did not. These characteristics indicate that a substantial proportion of respondents had exposure to entrepreneurial family backgrounds.

Measurement Model Assessment

The results of the reliability and convergent validity assessments for all research constructs are presented in Table 1. The Cronbach's Alpha values for all constructs exceeded 0.8, indicating a high level of internal consistency. Furthermore, the Composite Reliability (CR) values were above the recommended threshold of 0.7, confirming the good reliability of the constructs. The Average Variance Extracted (AVE) values for all constructs also exceeded 0.5, indicating adequate convergent validity. In addition, the outer loadings of the indicators were evaluated to assess their contribution to the respective constructs. Indicators with outer loading values below 0.70 were eliminated from the measurement model, while indicators meeting the recommended threshold were retained. Specifically, the EWB construct initially comprised seven indicators. However, EWB02 was eliminated during the measurement model assessment because its outer loading did not meet the predetermined criterion of 0.70. Consequently, six EWB indicators, namely EWB01 and EWB03–EWB07, were retained in the final measurement model. The retained indicators demonstrated adequate relationships with the EWB construct, and the resulting measurement model met the established criteria for reliability and convergent validity.

Table 1. Measurement Model Assessment and R² Results

	Indicator	Outer loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)	R-square
EE	EE01	0.807	0.932	0.935	0.947	0.748	0.446
	EE02	0.881					
	EE03	0.916					
	EE04	0.883					
	EE05	0.835					
	EE06	0.861					
EM	EM01	0.855	0.926	0.928	0.942	0.729	
	EM02	0.861					
	EM03	0.868					
	EM04	0.854					
	EM05	0.829					
	EM06	0.855					
EWB	EWB01	0.799	0.884	0.887	0.912	0.633	0.629
	EWB03	0.834					
	EWB04	0.768					
	EWB05	0.766					
	EWB06	0.834					
	EWB07	0.770					
RP	RP01	0.852	0.817	0.833	0.880	0.647	
	RP02	0.877					
	RP03	0.750					

Indicator	Outer loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)	R-square
RP04	0.730					

EE= Entrepreneurial Education; EM= Entrepreneurial Mindset; EWB= Entrepreneurial Well-being; RP=Risk Perception

Source: Primary data processed, 2026

The establishment of discriminant validity also reinforces the theoretical structure proposed in this study. While entrepreneurial education, entrepreneurial mindset, and risk perception are interconnected in shaping entrepreneurial outcomes, the HTMT values ranged from 0.495 to 0.797 and remained below the 0.90 threshold, indicating that the constructs were empirically distinct (Table 2). Entrepreneurial education reflects an external learning resource, entrepreneurial mindset represents an internal cognitive orientation, risk perception reflects individual evaluation of uncertainty, and entrepreneurial well-being represents the psychological outcome of entrepreneurial development. The clear separation among these constructs supports the assumption that entrepreneurial well-being emerges through multiple psychological mechanisms rather than as a direct consequence of educational exposure alone.

Table 2. Discriminant Validity Assessment Using HTMT

	EE	EM	EWB	RP
EE				
EM	0.635			
EWB	0.731	0.797		
RP	0.605	0.495	0.594	

Source: Primary data processed, 2026

The coefficient of determination demonstrates (Table 1) that the proposed model possesses satisfactory explanatory power in capturing the underlying mechanisms of entrepreneurial education and entrepreneurial well-being. The results indicate that entrepreneurial education can be meaningfully explained by its antecedent constructs, suggesting that entrepreneurial learning is shaped by individuals' cognitive evaluations and perceptions rather than occurring independently of psychological influences. More importantly, entrepreneurial well-being exhibits a higher level of explanatory power, implying that the integration of entrepreneurial education and entrepreneurial mindset provides a comprehensive account of entrepreneurs' subjective well-being. This finding reinforces the theoretical argument that entrepreneurial well-being is not merely an outcome of entrepreneurial activities but is largely driven by educational and cognitive processes that enable individuals to interpret entrepreneurial challenges, opportunities, and uncertainties in ways that support personal growth and fulfillment. Overall, the findings provide evidence of the explanatory adequacy of the proposed framework and support the relevance of combining educational and psychological perspectives in understanding entrepreneurial well-being.

The model fit results (Table 3) provide preliminary evidence supporting the adequacy of the proposed framework in capturing the complex relationships among risk perception, entrepreneurial education, entrepreneurial mindset, and entrepreneurial well-being. The model yielded an SRMR value of 0.069, which is below the commonly recommended threshold of 0.08, indicating an acceptable approximate fit. However, the NFI value of 0.821 is below the commonly used threshold of 0.90 and therefore does not provide evidence of acceptable fit

based on NFI. The d_{ULS} and d_G values were 1.195 and 0.560, respectively; however, these values cannot be interpreted independently without the corresponding bootstrap-based confidence intervals. Therefore, model fit should be interpreted cautiously. More importantly, the positive $Q^2_{predict}$ values for Entrepreneurial Education (0.426) and Entrepreneurial Well-being (0.558) demonstrate that the model exhibits predictive relevance for the endogenous constructs. This finding is particularly important because entrepreneurial well-being may be influenced by multiple interrelated cognitive and educational factors. The model's predictive relevance for both entrepreneurial education and entrepreneurial well-being suggests that integrating risk perception and entrepreneurial mindset within a single framework provides a meaningful perspective on the entrepreneurial development process. Consequently, while the model fit indices should be interpreted cautiously, the predictive relevance results provide additional empirical support for the usefulness of the proposed framework in explaining entrepreneurial well-being (Hair et al., 2022).

Table 3. Assessment of Model Fit and Predictive Relevance

	Assessment of Model Fit and Predictive Relevance
SRMR	0.069
d_{ULS}	1.195
d_G	0.560
Chi-Square	574.490
NFI	0.821
$Q^2_{predict}$	EE = 0.426 EWB = 0.558

Source: Primary data processed, 2026

The f^2 results provide important evidence regarding the relative importance of each predictor within the proposed model. Among all relationships, Entrepreneurial Mindset demonstrates the largest effect on Entrepreneurial Well-being ($f^2 = 0.401$), indicating that cognitive mechanisms contribute more substantially to well-being outcomes than educational or risk-related factors. This finding is consistent with entrepreneurship research emphasizing that individuals' interpretations of opportunities, challenges, and uncertainty play a central role in determining entrepreneurial outcomes and well-being (Burnell et al., 2026; Nobre et al., 2026). Entrepreneurial mindset also exerted a substantial effect on entrepreneurial education ($f^2 = 0.293$), indicating that students' entrepreneurial cognitive orientation contributes meaningfully to their engagement with entrepreneurial learning. Entrepreneurial education, in turn, exerted a smaller but meaningful effect on entrepreneurial well-being ($f^2 = 0.143$). In contrast, the relatively limited contribution of risk perception to entrepreneurial well-being ($f^2 = 0.032$) indicates that risk evaluation alone is insufficient to explain variations in well-being. Overall, the effect size results support the theoretical assumption that entrepreneurial well-being emerges through cognitive transformation processes, with entrepreneurial mindset serving as the principal explanatory mechanism within the model.

Table 4. Effect Size (f^2) Assessment

	EE	EM	EWB	RP
EE			0.143	
EM	0.293		0.401	
EWB				
RP	0.165		0.032	

Source: Primary data processed, 2026

As shown in the hypothesis testing results (Table 5 and Figure 1), the results indicate that risk perception has a significant positive effect on entrepreneurial well-being ($\beta = 0.131$, $p = 0.033$), thereby supporting H1. Although the magnitude of the relationship is relatively modest, the finding suggests that greater awareness of entrepreneurial risk does not necessarily undermine psychological well-being. Instead, individuals who recognize potential uncertainty and business-related challenges may be better prepared to evaluate, anticipate, and respond to entrepreneurial demands. From a cognitive appraisal perspective, the psychological consequences of risk depend on how individuals interpret uncertain situations and evaluate their capacity to manage them. When entrepreneurial risk is perceived as manageable rather than uncontrollable, risk awareness may encourage more deliberate decision-making, preparedness, and adaptive coping, which can contribute to positive psychological functioning (Glowka et al., 2024; Yunjian Li et al., 2022). This interpretation is also consistent with Self-Determination Theory, which emphasizes the importance of competence and autonomy in maintaining well-being under challenging conditions (Ryan & Deci, 2020). Individuals who are able to recognize entrepreneurial risks while maintaining a sense of competence and control may be more capable of transforming uncertainty into a developmental challenge rather than a psychological threat. Therefore, the positive relationship identified in this study suggests that risk perception can contribute to entrepreneurial well-being when it operates as an informed appraisal that enables individuals to anticipate uncertainty and mobilize appropriate psychological and learning resources.

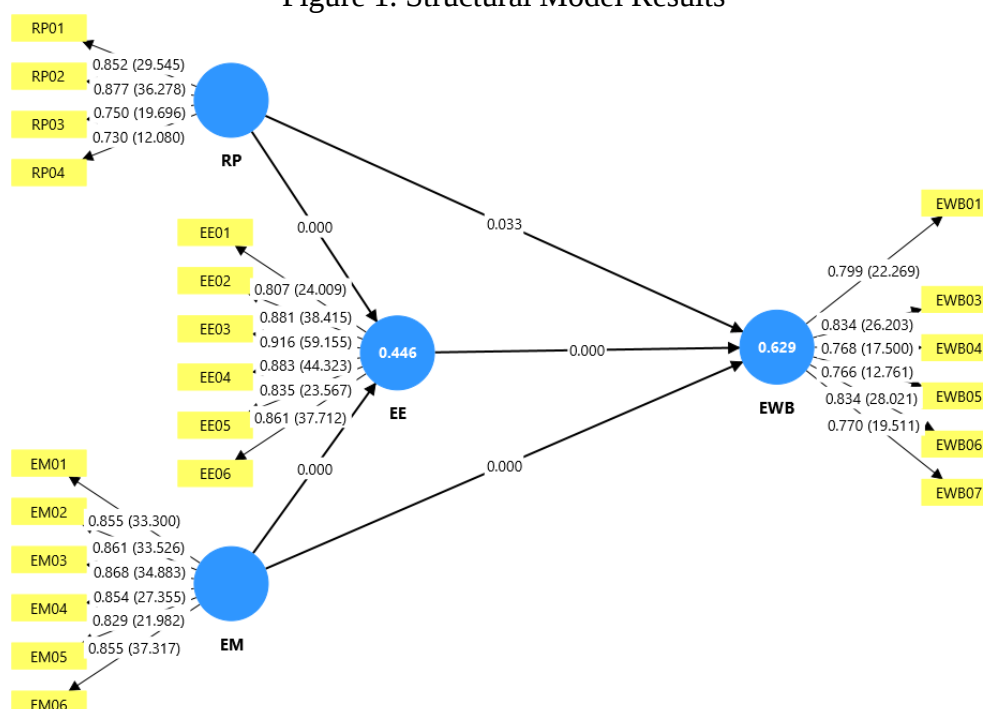
Table 5. Structural Model and Hypothesis Testing Results

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H1	RP → EWB	0.131	0.131	0.072	1.832	0.033
H2	EE → EWB	0.309	0.311	0.082	3.768	0.000
H3	RP → EE	0.336	0.334	0.078	4.301	0.000
H4	EM → EE	0.448	0.448	0.077	5.826	0.000
H5	EM → EWB	0.488	0.485	0.082	5.967	0.000
H6	EM → EE → EWB	0.139	0.140	0.047	2.973	0.001
H7	RP → EE → EWB	0.104	0.104	0.036	2.883	0.002

EE= Entrepreneurial Education; EM= Entrepreneurial Mindset; EWB= Entrepreneurial Well-being; RP=Risk Perception

Source: Primary data processed, 2026

Figure 1. Structural Model Results



The analysis revealed that entrepreneurial education has a strong and favorable effect on entrepreneurial well-being, supported by a path coefficient of 0.309 and a highly significant p-value of 0.000. This outcome is in accordance with Self-Determination Theory, which suggests that learning practices that support autonomy, competence, and connectedness enhance engagement and well-being across contexts (Ryan & Deci, 2020). Structured/experiential EE programs demonstrate improved behavior and competency mastery, which in turn are associated with positive affect, meaning, and entrepreneurial vitality. Practically, these results confirm that a needs-supportive EE curriculum design not only develops skills but also maintains the psychological health of aspiring entrepreneurs. This finding further indicates that entrepreneurial education serves not merely as a vehicle for knowledge transfer but also as a developmental environment that equips students with the psychological resources needed to navigate entrepreneurial challenges. By strengthening confidence, opportunity recognition, and perceived capability, entrepreneurial education helps students develop a more positive outlook toward entrepreneurial careers, thereby enhancing their overall sense of well-being. These results reinforce the growing view that entrepreneurial education contributes to both entrepreneurial capacity building and positive psychological development among future entrepreneurs.

The results indicate that risk perception plays a significant and positive role in shaping participation in entrepreneurial education, as reflected by a path coefficient of 0.336 and a p-value of 0.000. These findings indicate that individuals with high risk perceptions tend to proactively seek learning opportunities to reduce uncertainty, strengthen adaptive capacity, and develop mitigation strategies to address entrepreneurial challenges. These results are consistent with the theoretical model that positions risk perception as a driving factor for increased interest and participation in entrepreneurial education (Ljubotina, 2021). From a learning perspective, individuals who perceive higher levels of uncertainty are more likely to engage in educational activities that enhance their knowledge, self-efficacy, and decision-making capabilities.

Entrepreneurial education provides a structured environment in which potential entrepreneurs can acquire practical competencies, evaluate business opportunities, and develop strategies for managing entrepreneurial risks. Previous studies have shown that entrepreneurial education can reduce perceived uncertainty and strengthen entrepreneurial preparedness by improving both cognitive and behavioral competencies (Fayolle & Gailly, 2015). Therefore, the positive relationship observed in this study suggests that risk perception may function as a motivational trigger that encourages individuals to pursue entrepreneurial learning as a means of coping with uncertain business environments.

The analysis shows that entrepreneurial mindset significantly and positively affects participation in entrepreneurial education, as indicated by a path coefficient of 0.448 and a p-value of 0.000. Individuals with a growth orientation and proactiveness tend to be more diligent in participating in project-based learning and reflecting on feedback, resulting in higher learning transfer (Larsen et al., 2023). Within higher education contexts, learning goal orientation combined with social capital has been found to reinforce self-efficacy and increase involvement in entrepreneurial activities (M. Liu, 2024). Reciprocally, EE also shapes orientation/mindset, but this finding confirms the “selection effect” side: those who have an entrepreneurial mindset from the start are better prepared to maximize learning opportunities (Khalil et al., 2024). This finding suggests that students with stronger entrepreneurial mindsets are more likely to recognize the value of entrepreneurial education as a means of developing their entrepreneurial potential. Their tendency to embrace challenges, seek opportunities, and persist in the face of obstacles encourages greater engagement in entrepreneurial learning activities. Previous studies have also highlighted that entrepreneurial mindset is associated with higher levels of learning motivation, opportunity recognition, and proactive behavior, all of which facilitate active participation in entrepreneurship-related educational programs (Cui et al., 2021). Therefore, entrepreneurial mindset can be viewed as an important psychological resource that motivates students to actively invest in entrepreneurial learning and development.

The findings reveal that entrepreneurial mindset exerts a significant positive impact on entrepreneurial well-being, as evidenced by a path coefficient of 0.488 and a p-value of 0.000. Psychologically, an adaptive mindset shifts appraisals from threats to challenges, increasing vitality, meaning, and satisfaction, which support entrepreneurial persistence (Lanivich et al., 2021). Meta-analysis also shows that heterogeneity in entrepreneurial well-being is largely explained by cognitive mechanisms such as meaning-based coping and self-regulation (Stephan et al., 2023). Thus, strengthening an entrepreneurial mindset is not merely an instrument for improving entrepreneurial performance but also an important foundation for maintaining a positive entrepreneurial experience. Individuals with a strong entrepreneurial mindset are more likely to approach uncertainty proactively, recognize opportunities, adapt to changing circumstances, and maintain confidence when encountering entrepreneurial challenges. These cognitive and self-regulatory capacities enable individuals to interpret demanding entrepreneurial situations more constructively and sustain positive psychological functioning. Recent research further demonstrates that entrepreneurial well-being develops through the interaction of motivational, skill-related, and self-regulatory processes throughout the entrepreneurial journey (Dimov & Pistrui, 2024). From the perspective of Self-Determination Theory, an entrepreneurial mindset may also strengthen individuals’ sense of autonomy and competence by encouraging self-directed action and confidence in dealing with entrepreneurial challenges (Ryan & Deci, 2020). Therefore, the present finding reinforces the view that entrepreneurial mindset constitutes an important psychological resource that enables

individuals not only to respond effectively to entrepreneurial uncertainty but also to maintain greater entrepreneurial well-being.

Results show that the indirect influence of EM on EWB via EE is statistically significant, as reflected in a p-value of 0.001. Since the direct path from EM to EWB (H5) is also significant, this pattern indicates complementary mediation. Substantively, mindset encourages deeper and higher-quality engagement in EE; need-supportive EE may strengthen competence, autonomy, and relatedness, three psychological needs that enhance well-being (Ryan & Deci, 2020). These findings reinforce recommendations that EE programs facilitate autonomous projects, mentoring, and authentic feedback, so that students with a strong mindset experience a boost in well-being through learning experiences (Khalil et al., 2024; Smolka et al., 2024). The findings further suggest that entrepreneurial education serves as an important mechanism through which entrepreneurial mindset is translated into positive psychological outcomes. While individuals with a strong entrepreneurial mindset already possess cognitive dispositions that support well-being, educational experiences provide opportunities to apply, refine, and validate these dispositions in real or simulated entrepreneurial contexts. Such experiences can strengthen self-efficacy, reinforce perceived competence, and generate a stronger sense of achievement, thereby amplifying the positive effect of entrepreneurial mindset on entrepreneurial well-being (Wardana et al., 2020). Therefore, entrepreneurial education not only complements the direct influence of entrepreneurial mindset but also enhances its contribution to students' overall entrepreneurial well-being.

The findings indicate that the indirect influence of RP on EWB through EE was statistically significant (p-value = 0.002), thereby supporting H7. Since the direct effect of risk perception on entrepreneurial well-being is also positive and significant, the results indicate complementary mediation. This pattern suggests that risk perception contributes to entrepreneurial well-being through both a direct psychological appraisal pathway and an indirect educational pathway. Individuals who recognize entrepreneurial risks may develop greater awareness of the uncertainties associated with entrepreneurial activities, which can encourage more deliberate preparation and adaptive responses. At the same time, perceived risk may increase individuals' engagement with entrepreneurial education as a means of acquiring knowledge, improving decision-making capabilities, and strengthening their capacity to manage uncertainty. Through these educational experiences, risk awareness can be translated into greater competence and perceived control, which are central psychological resources for maintaining well-being. From a Self-Determination Theory perspective, entrepreneurial education can strengthen individuals' sense of competence and autonomy in dealing with entrepreneurial challenges, thereby reinforcing the positive contribution of risk perception to entrepreneurial well-being (Ryan & Deci, 2020). The finding therefore demonstrates that entrepreneurial education does not replace the direct role of risk perception but complements it by providing a developmental mechanism through which risk awareness can be transformed into psychological resources that support entrepreneurial well-being.

CONCLUSION

This study concludes that entrepreneurial well-being is significantly influenced by risk perception, entrepreneurial mindset, and entrepreneurial education. Risk perception has a positive direct effect on entrepreneurial well-being and also contributes indirectly through entrepreneurial education, indicating complementary mediation. Similarly, entrepreneurial mindset directly enhances entrepreneurial well-being while also exerting an indirect effect

through entrepreneurial education, demonstrating another complementary mediation pathway. These findings confirm that entrepreneurial education plays an important role in translating cognitive orientations and risk awareness into psychological resources that support entrepreneurial well-being. From the perspective of SDT, educational experiences may strengthen individuals' autonomy and competence in managing entrepreneurial challenges, thereby reinforcing the positive contributions of both entrepreneurial mindset and risk perception to well-being. The results broaden entrepreneurial education research by positioning entrepreneurial well-being as an important outcome beyond conventional measures such as entrepreneurial intention and by demonstrating that cognitive and educational factors operate jointly in supporting psychologically sustainable entrepreneurial development. Nevertheless, the use of accidental sampling, student respondents, and self-reported measures limits causal inference and generalizability. Future research should employ longitudinal designs, involve established entrepreneurs and more diverse populations, and further examine the psychological mechanisms through which entrepreneurial education contributes to entrepreneurial well-being.

REFERENCES

- Alshagawi, M., & Ghaleb, M. M. (2023). *Entrepreneurial intentions of university students in the Kingdom of Saudi Arabia*. *International Journal of Innovation Science*, 15(4), 581–597. <https://doi.org/10.1108/IJIS-05-2021-0083>
- Barbosa, R. M. A., Pérez-Nebra, A. R., Villajos, E., & González-Ladrón-De-Guevara, F. (2024). *The entrepreneur's well-being: current state of the literature and main theories*. *Journal of Global Entrepreneurship Research*, 14(1), 46. <https://doi.org/10.1007/s40497-024-00413-4>
- Brixy, U., & Murmann, M. (2025). *Hiring opportunities for new firms and the business cycle*. *Small Business Economics*, 64(3), 1387–1413. <https://doi.org/10.1007/s11187-024-00948-6>
- Burnell, D., Fisher, G., Stevenson, R., & Kuratko, D. F. (2026). *Entrepreneurial Experimentation: Conceptual Foundations, Integrative Theoretical Framework, and Research Agenda*. *Entrepreneurship Theory and Practice*, 50(1 Second Special Issue on Knowledge Accumulation in Entrepreneurship), 275–312. <https://doi.org/10.1177/10422587251347046>
- Cochran, W. G., & Cochran, W. G. (1977). *Sampling techniques (Vol. 3, Issue 4)*. Wiley New York.
- Cui, J., Sun, J., & Bell, R. (2021). *The impact of entrepreneurship education on the entrepreneurial mindset of college students in China: The mediating role of inspiration and the role of educational attributes*. *International Journal of Management Education*, 19(1). <https://doi.org/10.1016/j.ijme.2019.04.001>
- Denanyoh, R., Adjei, K., & Nyemekye, G. E. (2015). *Factors That Impact on Entrepreneurial Intention of Tertiary Students in Ghana*. *International Journal of Business and Social Research*, 05(03), 19–29.
- Dimov, D., & Pistrui, J. (2024). *Dynamics of entrepreneurial well-being: Insights from computational theory*. *Journal of Business Research*, 172. <https://doi.org/10.1016/j.jbusres.2023.114427>
- Enrique, S., Martínez-Gregorio, S., & Oliver, A. (2024). *Subjective well-being in university students: Two psychosocial skills complementing entrepreneurial attitudes*. *Industry and Higher Education*, 38(3), 272–283.

- Fayolle, A., & Gailly, B. (2015). *The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence*. *Journal of Small Business Management*, 53(1), 75–93. <https://doi.org/10.1111/jsbm.12065>
- Glowka, G., Hule, R., & Zehrer, A. (2024). *Risk perception of SMEs: strategic risks, family-related risks, external risks*. *Springer*, 26(4), 17. <https://doi.org/10.1057/S41283-024-00148-2>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM) (3rd ed.)*. Sage Publications.
- Handayati, P., Wulandari, D., Soetjipto, B. E., Wibowo, A., & Narmaditya, B. S. (2020). *Does entrepreneurship education promote vocational students' entrepreneurial mindset?* *Heliyon*, 6(11). <https://doi.org/10.1016/j.heliyon.2020.e05426>
- Hassan, A., Anwar, I., Saleem, I., Islam, K. M. B., & Hussain, S. A. (2021). *Individual entrepreneurial orientation, entrepreneurship education and entrepreneurial intention: The mediating role of entrepreneurial motivations*. *Industry and Higher Education*, 35(4), 403–418. <https://doi.org/10.1177/09504222211007051>
- Huang, M., Wang, J., & Su, X. (2024). *The Impact of Social Support on Entrepreneurial Well-being: The Role of Entrepreneurial Passion and Entrepreneurial Efficacy*. *SAGE Open*, 14(4). <https://doi.org/10.1177/21582440241297232>
- Jiatong, W., Murad, M., Bajun, F., Tufail, M. S., Mirza, F., & Rafiq, M. (2021). *Impact of entrepreneurial education, mindset, and creativity on entrepreneurial intention: mediating role of entrepreneurial self-efficacy*. *Frontiers in Psychology*, 12, 724440. <https://doi.org/10.3389/FPSYG.2021.724440/FULL>
- Karyaningsih, R. P. D., Wibowo, A., Saptono, A., & Narmaditya, B. S. (2020). *Does entrepreneurial knowledge influence vocational students' intention? Lessons from indonesia*. *Entrepreneurial Business and Economics Review*, 8(4), 138–155. <https://doi.org/10.15678/EBER.2020.080408>
- Khalil, H., Hashim, K. F., Atallah, S., & Rababa, M. (2024). *Shaping the entrepreneurial mindset: Exploring the impact of entrepreneurship education on entrepreneurial intentions among university students in the UAE: The mediating role of individual entrepreneurial orientation*. *International Journal of Educational Research*, 127. <https://doi.org/10.1016/j.ijer.2024.102430>
- Krichen, K., & Chaabouni, H. (2022). *Entrepreneurial intention of academic students in the time of COVID-19 pandemic*. *Journal of Small Business and Enterprise Development*, 29(1), 106–126. <https://doi.org/10.1108/JSBED-03-2021-0110>
- Lanivich, S. E., Bennett, A., Kessler, S. R., McIntyre, N., & Smith, A. W. (2021). *RICH with well-being: An entrepreneurial mindset for thriving in early-stage entrepreneurship*. *Journal of Business Research*, 124, 571–580. <https://doi.org/10.1016/j.jbusres.2020.10.036>
- Larsen, I. B., Blenker, P., & Neergaard, H. (2023). *The entrepreneurial mindset in entrepreneurship education: what can we learn from S-O-R models?* *Education + Training*, 65(8–9), 1043–1069. <https://doi.org/10.1108/ET-09-2022-0364>
- Li, Yue, Cao, K., & Jenatabadi, H. S. (2023). *Effect of entrepreneurial education and creativity on entrepreneurial intention in college students: mediating entrepreneurial inspiration, mindset, and self-efficiency*. *Frontiers in Psychology*, 14(September), 1–13. <https://doi.org/10.3389/fpsyg.2023.1240910>
- Li, Yunjian, Chen, H., Liu, C., & Liu, H. (2022). *How does COVID-19 pandemic affect entrepreneur anxiety? The role of threat perception and performance pressure*. *Frontiers*

- in Psychology, 13. <https://doi.org/10.3389/FPSYG.2022.1044011/FULL>
- Liu, H., Xu, X., Xiao, Q., Wang, Q., & Hao, S. (2026). *The Dual Role of Stress in Learning: Exploring the Interplay Between Motivation, Stress Perception, and Mental Well-Being Among Chinese Middle School Students*. *Psychology in the Schools*, 63(2), 471–484. <https://doi.org/10.1002/pits.70104>
- Liu, M. (2024). *Learning goal orientation, social capital, and entrepreneurial intentions: A multigroup analysis within entrepreneurship programs*. *International Journal of Management Education*, 22(3). <https://doi.org/10.1016/j.ijme.2024.101043>
- Liu, M., Tong, X., Zhao, L., & Cai, W. (2025). *More resources or less demands? A three-wave longitudinal study on student well-being and perceived employability in entrepreneurship courses*. *International Journal of Management Education*, 23(2), 101120. <https://doi.org/10.1016/j.ijme.2024.101120>
- Ljubotina, P. (2021). *The influence of entrepreneurial skills, education and risk perception on career choice intent: The case of European students with family business background*. *Research in Social Change*, 12(1), 23–37. <https://doi.org/10.2478/rsc-2020-0002>
- Massa, R. M., Andreassi, T., Partyka, R. B., & Lana, J. (2024). *Opportunity or Illusion? Risk Perception in Opportunity Evaluation*. *Brazilian Business Review*, 21(2), 1–19. <https://doi.org/10.15728/bbr.2022.1205.en>
- Mukhtar, S., Wardana, L. W., Wibowo, A., & Narmaditya, B. S. (2021). *Does entrepreneurship education and culture promote students' entrepreneurial intention? The mediating role of entrepreneurial mindset*. *Cogent Education*, 8(1), 1–18. <https://doi.org/10.1080/2331186X.2021.1918849>
- Ndofirepi, T. M. (2020). *Relationship between entrepreneurship education and entrepreneurial goal intentions: psychological traits as mediators*. *Journal of Innovation and Entrepreneurship*, 9(1). <https://doi.org/10.1186/s13731-020-0115-x>
- Nikolaev, B. N., Lerman, M. P., Boudreaux, C. J., & Mueller, B. A. (2023). *Self-Employment and Eudaimonic Well-Being: The Mediating Role of Problem- and Emotion-Focused Coping*. *Entrepreneurship: Theory and Practice*, 47(6), 2121–2154. <https://doi.org/10.1177/10422587221126486>
- Nobre, F. S., Packard, M. D., & Clark, B. B. (2026). *The Promise of Fuzzy Set Theory for Entrepreneurial Judgment*. *Entrepreneurship Theory and Practice*, 50(3), 757–788. <https://doi.org/10.1177/10422587251388026>
- Pham, V. H., Nguyen, T. K. C., Nguyen, T. B. L., Tran, T. T. T., & Nguyen, T. V. N. (2023). *Subjective norms and entrepreneurial intention: A moderated-serial mediation model*. *Journal of Entrepreneurship, Management and Innovation*, 19(1), 113–140. <https://doi.org/10.7341/20231914>
- Porfírio, J. A., Carrilho, T., Jardim, J., & Wittberg, V. (2022). *Fostering Entrepreneurship Intentions: The Role of Entrepreneurship Education*. *Journal of Small Business Strategy*, 32(1), 1–10. <https://doi.org/10.53703/001c.32489>
- Rosas, N., Acevedo, M. C., & Zaldivar, S. (2022). *Starting points matter: Cash plus training effects on youth entrepreneurship, skills, and resilience during an epidemic*. *World Development*, 149. <https://doi.org/10.1016/j.worlddev.2021.105698>
- Ryan, R. M., & Deci, E. L. (2020). *Intrinsic and extrinsic motivation from a self-determination theory perspective : Definitions , theory , practices , and future directions*. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Ryff, C. D. (1989). *Happiness is everything , or is it ? Explorations on the meaning of psychological well-being*. *Journal of Personality and Social Psychology*, 57(6), 1069–

1081.

- Shen, J., & Huang, X. (2023). *The role of entrepreneurial education in determining actual entrepreneurial behavior: Does TESOL amplified communication apprehension matter?* *Frontiers in Psychology*, 13. <https://doi.org/10.3389/FPSYG.2022.1074774/FULL>
- Simon, M., Houghton, S. M., & Aquino, K. (2000). *Cognitive biases, risk perception, and venture formation: How individuals decide to start companies.* *Journal of Business Venturing*, 15(2), 113–134. [https://doi.org/10.1016/S0883-9026\(98\)00003-2](https://doi.org/10.1016/S0883-9026(98)00003-2)
- Smolka, K. M., Geradts, T. H. J., van der Zwan, P. W., & Rauch, A. (2024). *Why bother teaching entrepreneurship? A field quasi-experiment on the behavioral outcomes of compulsory entrepreneurship education.* *Journal of Small Business Management*, 62(5), 2396–2452. <https://doi.org/10.1080/00472778.2023.2237290>
- Stephan, U., Rauch, A., & Hatak, I. (2023). *Happy Entrepreneurs? Everywhere? A Meta-Analysis of Entrepreneurship and Wellbeing.* *Entrepreneurship: Theory and Practice*, 47(2), 553–593. <https://doi.org/10.1177/10422587211072799>
- Stephan, U., Tavares, S. M., Carvalho, H., Ramalho, J. J. S., Santos, S. C., & van Veldhoven, M. (2020). *Self-employment and eudaimonic well-being: Energized by meaning, enabled by societal legitimacy.* *Journal of Business Venturing*, 35(6). <https://doi.org/10.1016/j.jbusvent.2020.106047>
- Sun, J., Shi, J., & Zhang, J. (2023). *From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure.* *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.954118>
- Ukil, M. I., & Jenkins, A. (2023). *Willing but fearful: resilience and youth entrepreneurial intentions.* *Journal of Small Business and Enterprise Development*, 30(1), 78–99. <https://doi.org/10.1108/JSBED-03-2022-0154/FULL/HTML>
- Wardana, L. W., Narmaditya, B. S., Wibowo, A., Mahendra, A. M., Wibowo, N. A., Harwida, G., & Rohman, A. N. (2020). *The impact of entrepreneurship education and students' entrepreneurial mindset: the mediating role of attitude and self-efficacy.* *Heliyon*, 6(9). <https://doi.org/10.1016/j.heliyon.2020.e04922>
- Yang, H., Zhang, L., Wu, Y. J., & Shi, H. (2021). *Benefits and costs of happy entrepreneurs: the dual effect of entrepreneurial identity on entrepreneurs' subjective well-being.* *Frontiers in Psychology*, 12, 767164. <https://doi.org/10.3389/FPSYG.2021.767164/FULL>
- Zhang, W., Li, Y., Zeng, Q., Zhang, M., & Lu, X. (2022). *Relationship between Entrepreneurship Education and Entrepreneurial Intention among College Students: A Meta-Analysis.* *International Journal of Environmental Research and Public Health*, 19(19). <https://doi.org/10.3390/ijerph191912158>